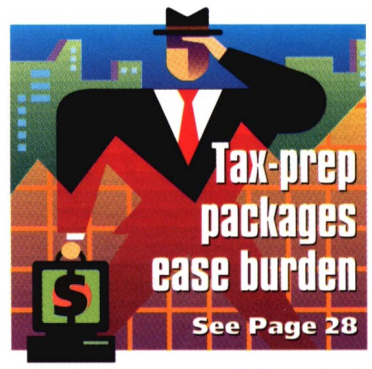
MacWEEK

03.11.96 | *The Newsweekly for Macintosh Managers* | VOLUME 10 NUMBER 10



Now brings the Internet Up-to-Date

By James Staten

Now Software Inc. has reportedly found a way to tie its scheduling and contact-management programs to the Internet and is busy forming alliances to make this feature enticing to users.

Now showed off the new Internet functions last week under the guise of a "technology demonstration" at the Netscape Internet Developers Conference in San Francisco.

Sources said the next versions of Now Up-to-Date and Now Contact, due this quarter, will let users post their calendars and

See Now, Page 64

QuickTime shifts into high gear

SGI teams with Apple on video

By David Morgenstern

Apple and Silicon Graphics Inc. last week stitched together an agreement intended to sew up the video production market.

The pair said QuickTime 2.2 this summer will be rolled into SGI's SiliconStudio workstation-based architecture for integrated digital video production. The combination will improve asset management and let users create, view and manage content throughout the entire production process.

The QuickTime arrangement will tie SGI's high-end Unix

See SGI, Page 66

Version 2.2, soft MPEG due by May

By Kelly Ryer

In the face of Microsoft Corp.'s announcement of a rival technology (see story, Page 66), Apple came clean with both short- and long-term plans for its QuickTime multimedia technology.

Apple will be making changes in two phases, with forthcoming pieces that will include QuickTime 2.2., a software MPEG extension, plug-ins for Netscape Navigator and a common-code version for multiple platforms.

According to Apple, the first phase is well under way, and its components will ship by May. First in line is QuickTime 2.2, which improves performance and adds several key enhancements.

The release will feature an updated MIDI API that allows users to write their own instruments. Third-party vendors will be able to offer new instrument libraries.

QuickTime 2.2 will let users drag sound files to and from MIDI applications, and Power Mac users will enjoy CD-quality playback for MIDI files. It will also support Karaoke MIDI, which provides timed cues for text-based lyrics.

Users will be able to add QuickDraw 3D objects to a track in a QuickTime movie. In addi-

See QuickTime, Page 66

Apple's QuickTime epic: MPEG, multiple platforms, interactivity

MAY 1996	SUMMER 1996	Q1, 1997
QuickTime 2.2 ▸ Music architecture extended ▸ QuickDraw 3D support ▸ Multiprocessor support ▸ Closed-captioning ▸ Multiple text tracks	**Netscape plug-in** ▸ Full Internet streaming **MPEG extension to QT (PowerPC only)** ▸ Software-only playback ▸ MPEG editing supported	**Multiplatform parity releases** ▸ Mac OS 7.5.x ▸ Windows 95 ▸ Windows NT ▸ OS/2, Unix (SGI) to follow	**Interactive QuickTime** ▸ Full object-based scripting language ▸ Translation layer for third-party scripting languages ▸ Multi-platform support

NEWSMAKER

Roizen vows quick fix for Apple developers

By Mark Hall

Heidi Roizen wasn't surprised when an audience of developers favored the Macintosh over Windows 95 in a platform shootout at the Software Publishers Associa-

BOB ADLER

tion conference in San Francisco last week.

"They love the Mac," Apple's new vice president of developer relations said. "It's market perceptions more than technology that hurt us."

As the ex CEO of Mac developer T/Maker Co. and a former SPA executive, Roizen is intimate with the issues third parties face when deciding whether to support Macs. That's why after barely a week officially on the job, she has already outlined a five-point fix-it plan.

Her first priority is to deal with the concerns of the top 20 developer accounts. "We need

See Roizen, Page 64

Speed bump ahead for Power Macs

New 7600 to run on 120-MHz 604

By Joanna Pearlstein

Next month Apple will release its fastest Macs yet when it bumps up the speeds of its current line of PCI Power Macs.

Apple's new Power Macs will include top-of-the-line systems equipped with 150-MHz PowerPC 604 processors. The 120- and 132-MHz Power Mac 9500 machines will reportedly be replaced by a 150-MHz edition. Likewise, Apple will replace the 8500's 120-MHz 604 with 132- and 150-MHz 604 processors.

New to Apple's lineup will be the Power Mac 7600, a 120-MHz 604-equipped Mac that will reportedly replace the 100-MHz 601-based 7500. In all other respects, sources said, the 7600 will be identical to the 7500.

Rounding out Apple's speed bump systems will be a 120-MHz 601 version of the Power Mac 7200, which will replace current 75- and 90-MHz 7200 systems.

The 7500, 8500 and 9500 were the first Macs to feature CPUs mounted on removable daughtercards. Upgrades to fit those slots will likely be available from third parties and Apple sometime after the speed bump systems' debut.

While sources said the new configurations will mostly be identical to the PCI Macs they will replace, all speed bump systems will reportedly offer a least one configuration

See CPUs, Page 64

New Apple CPU lineup

CPU	PROCESSOR	CONFIGURATION	PRICE
7200	120-MHz 601	8/1.2 GB/CD	$1,900
7200	120-MHz 601	16/1.2 GB/CD/Level 2 cache	$2,300
7600*	120-MHz 604	16/1.2 GB/CD/Level 2 cache	$3,000
8500	132-MHz 604	16/1.2 GB/CD/Level 2 cache	$3,900
8500	150-MHz 604	16/2 GB/CD/Level 2 cache	$4,700
9500	150-MHz 604	16/2 GB/CD/Level 2 cache	$4,800†

**Apple will reportedly discontinue the 7500 and replace it with the 7600. †Price includes graphics card.*

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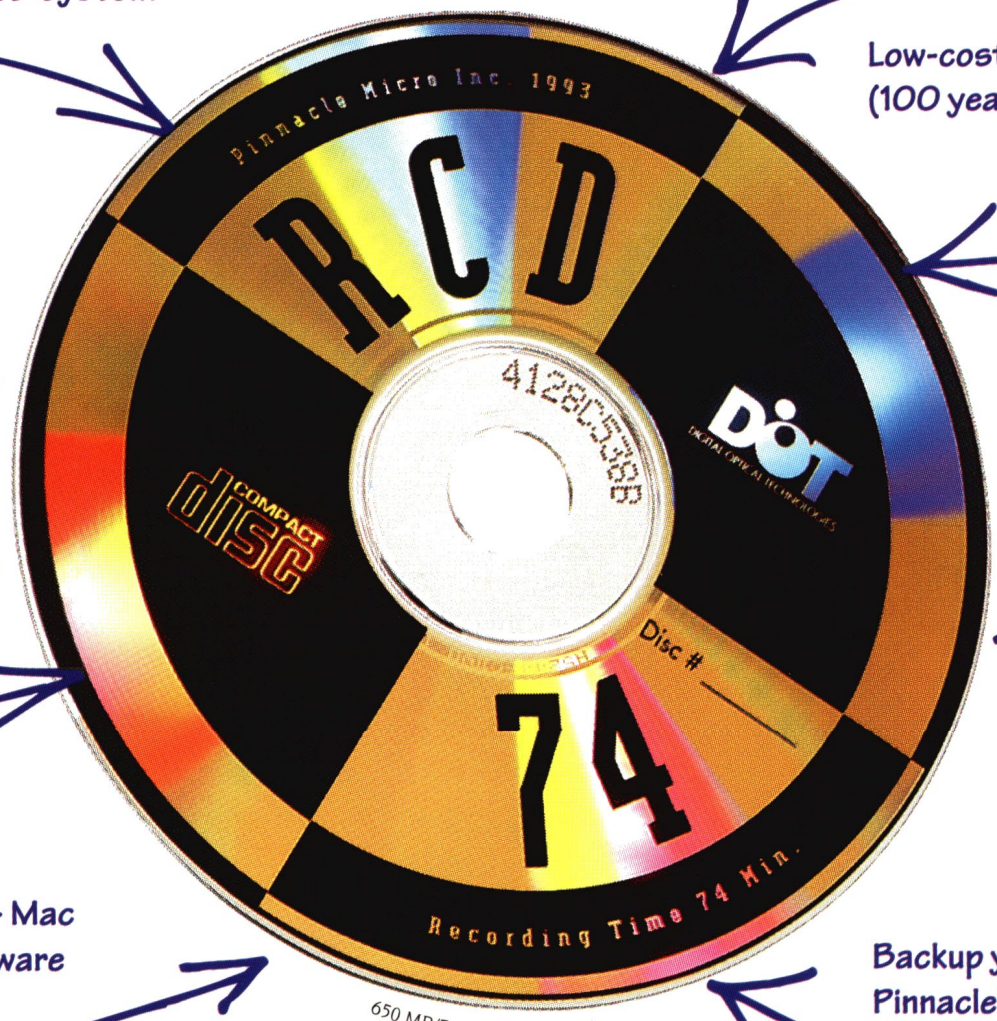

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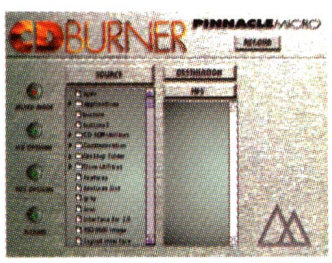

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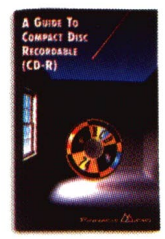

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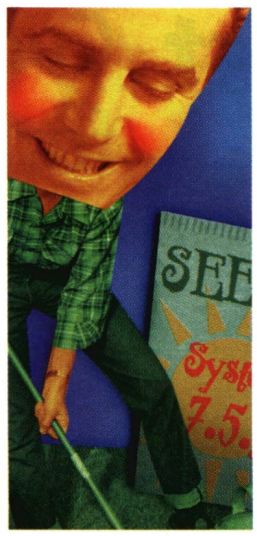

Digging up the new Finder, enablers and bug fixes in the latest updates to System 7.5. See MacInTouch, Page 33.

Hewlett-Packard's Color LaserJet 5M takes over for the Color LaserJet. See News, Page 6.

Microsoft's Beta 3 of Internet Explorer 2.0 gains support for Netscape plug-ins, such as Shockwave. See Gateways, Page 14.

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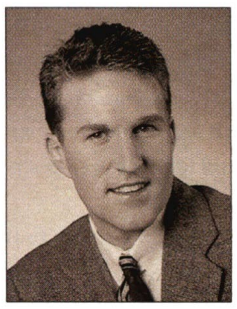
MACWEEK INSIDER JAMES STATEN

Step forward, Big Blue

Motorola Inc., Apple and IBM Corp. gave birth to PowerPC. Apple has been a good parent to the chip, nurturing it by selling it in large quantities to the masses through its Mac OS-based products. Motorola has licensed the OS and promises to take PowerPC to distant shores. Isn't it time IBM licensed the Mac and helped its progeny mature into a market leader?

Not only would it be good for the Macintosh platform, it would be good for Big Blue as well. IBM needs a boost. OS/2 is floundering. Its Power Personal systems, desktop Unix boxes powered by the PowerPC, have been a bust. And the ThinkPad's market share is eroding because of stiff competition from Compaq Computer Corp., NEC Corp. and a raft of other Intel-standard PC makers.



Meanwhile, the Mac platform has taken a beating as a result of Apple's revolving door to its executive offices and because of the thorough shellacking it has taken in the press. Mac sales are down in key IBM markets such as government and corporate. And while alliances to increase sales in places such as China (where hardly a Mac or PC exists) are good, they do nothing for Mac sales inside the United States.

IBM, with an army of superior sales and marketing specialists, knows how to hawk PCs in markets where Apple is weak. It knows how to provide the level of service customers need and isn't afraid to play hardball to win large-scale contracts.

One area where its products would surely dominate is the laptop arena. This segment is ripe for the picking. Apple's PowerBook line has never been weaker than it is today. IBM's ThinkPads have been the benchmark by which innovation is measured on the Intel side of the business. Its butterfly keyboard, extra-large LCD screens and easy access to swappable components have earned it high praise. ThinkPads could completely control the Mac side if launched today.

It has long been rumored that IBM is holding a Mac license and is simply waiting for the appropriate time to announce its Mac plans. In fact, Big Blue has done everything but hold a formal press conference and make the news official.

Case in point: Shortly after delivering OS/2 for PowerPC in January, IBM pulled the plug on further development of the operating system. As a result, Big Blue won't be selling its Power Personal line, which includes PowerPC-based laptops, to the masses. The company has been quiet on its plans for OS/2 Warp on PowerPC, and if this weren't a less-than-subtle hint, Apple demonstrated a coming version of System 7.5 running on an IBM desktop PowerPC Platform (PPCP) prototype at Demo 96 last month in Palm Springs, Calif. (see 02.05.96, Page 1).

The retreat from OS/2 for PowerPC begs a bigger question: If not OS/2, then what?

The event at Demo points out that IBM is on the Mac OS page. How close that system — and the PPCP version of System 7.5, for that matter — is to completion remains to be seen.

But the retreat from OS/2 for PowerPC begs a bigger question: If not OS/2, then what?

IBM has a responsibility to its customers to answer this question. While AIX may be the answer for those wanting servers, there are a lot more desktop and workstation buyers out there who still need an answer.

Enough is enough. If IBM wants to sell PowerPC-based computers, Unix isn't the mass-market solution. And it's doubtful the company is enthusiastic about making Microsoft Corp.'s Windows NT its OS of choice.

Timing is everything in this business, and IBM couldn't ask for better timing. Apple and its current clone partners have not made much of a dent in the armor surrounding corporate IS. IBM loves to play savior, and here's a perfect opportunity to grab center stage.

Louis Gerstner, what are you waiting for? □

James Staten is MacWEEK associate editor/on-line. He welcomes your comments at james_staten@macweek.com.

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Power trims clone cost

604/150 model reduced by $700

By David Morgenstern

Power Computing Corp. this week is cutting prices on its PowerWave and PowerCurve clones.

The largest cut is on the company's PowerWave 604/150 model, which uses a 150-MHz PowerPC 604 processor (see 10.30.95, Page 1). A base configuration with 16 Mbytes of RAM, 512-Kbyte Level 2 cache, PCI video card, 1-Gbyte hard drive and quadruple-speed CD-ROM is $3,799, down from $4,499.

Power is also lowering its PowerWave 604/132 systems by $200; a $3,699 configuration similar to the 604/150 is now priced at $3,499. The company's 120-MHz PowerWave 604/120 system is dropping $400. A fully packed 16-Mbyte system now costs $2,799; an entry-level 8-Mbyte configuration costs $2,550.

Power lowers PowerPC 604 price hurdle

MODEL	ENCLOSURE	OLD PRICE	NEW PRICE
PowerWave 604/150	Minitower	$4,499	$3,799
PowerWave 604/132	Minitower	$3,699	$3,499
PowerWave 604/132	Desktop	$3,649	$3,449
PowerWave 604/120	Desktop	$3,199	$2,799

In addition, the company trimmed the prices of its low-cost PowerCurve line, introduced in January (see 01.08.96, Page 1).

A standard PowerCurve 601/120 model, including a 120-MHz 601 processor, 8 Mbytes of RAM, 2 Mbytes of video RAM and 850-Mbyte hard drive, now costs $1,799; it was previously priced at $1,849.

Power Computing Corp. of Round Rock, Texas, is at (512) 388-6868 or (800) 999-7279; fax (512) 388-6799; info@powercc.com; http://www.powercc.com. □

Apple gets CFO

New Apple CEO Gilbert Amelio didn't wait long to fill out his executive roster. Last week he named Fred Anderson Jr. as chief financial officer.

Anderson, former vice president and CFO at Automatic Data Processing Inc. of Roseland, N.J., is Amelio's second top-level appointment in two weeks. On Feb. 29 he hired George Scalise to become chief administrative officer. Scalise served under Amelio as executive vice president at National Semiconductor Corp.

An Apple spokeswoman said Anderson is set to join the company on April 1. The new CFO succeeds Joseph Graziano, who abruptly quit last year after a public spat with former company CEO Michael Spindler. □

Copland not in cards for PowerBook 500s

By Joanna Pearlstein

Apple has long acknowledged that Copland, the company's next-generation operating system, will run only on PowerPC-based Macs. Now, Apple said the OS — which will ship to developers at the Apple Worldwide Developers Conference in May — will not run on 680x0 Macs upgraded to PowerPC via an add-on card.

Chief among the Macs that will not run Copland are upgraded PowerBook 500-series portables. However, Apple said Copland will run on machines that stepped up to PowerPC via a logic-board replacement, including the PowerBook 200 and 190 series.

Mike Pappas, owner of Pappas Consulting, a Mac consulting firm in Lakewood, Colo., said he was unhappy that his PowerBook 540c wouldn't run Copland. "The reason I bought the 540 instead of waiting for the 5000 series was because [Apple] said it was upgradable to PowerPC; I thought that meant it would run Copland. I feel I've been lied to."

Other PowerBook users, however, were less concerned. "Running Copland isn't going to be a big deal," said Don Paul, president of Orange, Calif.-based Impact Commercial Brokers. "Copland kind of reminds me of the imminent release of Windows 95 — I'm not going to run my business on [promises]."

Apple said the first developer release of Copland, DR1, will ship at the WWDC. The conference is scheduled to run May 13-17 at the San Jose (Calif.) Convention Center. □

eWorld coming to an end; users shepherded to AOL

By James Staten

Apple's foray into the mainstream on-line service business will come to an end March 31 when eWorld shuts down.

Diana Keith, director of Internet productions at Apple, said eWorld users will be encouraged to join America Online. Apple said it will provide e-mail forwarding tools until July 1 to help members switch to an AOL account.

Those wishing to change directly to the Internet will be able to buy the $99 Apple Internet Connection Kit from Claris Corp. for $35. The eWorld staff is preparing one-hour workshops to help members set up an account with a local Internet service provider.

Newton 2.0 users will be given a free mail client for at least one major on-line service. Newton 1.x owners are encouraged to use the range of third-party e-mail solutions available.

As part of the agreement with America Online Inc. of Vienna, Va., Apple said it will bundle AOL client software with its Performa Macs. AOL will offer eWorld members 20 free hours and will support Apple cross-platform technologies, such as QuickTime.

Apple's other on-line service, AppleLink, which is used to communicate with developers, key customers and employees, is also on its last legs. A plan, code-named DeLink, has been drafted that will move users off the service run by GE Information Services Inc. to Apple-run Internet services. That transition is expected to be completed sometime in 1997. □

Corel supports WordPerfect

By Jon Swartz

Corel Corp. announced last week that it has extended service and support to customers of WordPerfect, the business applications developer it shelled out $115 million for in February.

Effective today, WordPerfect customers will receive free, unlimited technical support. The program, which replaces Corel's current 180-day plan, covers all current versions of WordPerfect for Mac, DOS and Unix; PerfectOffice; Quattro Pro; Presentations; InfoCentral; and Envoy. Corel resellers, OEM partners, training centers and service bureaus will also receive free, unlimited support.

WordPerfect's support organization headquarters remain in Orem, Utah, and are being expanded into the new Corel USA office, according to Ottawa-based Corel.

"Feedback from our customers indicates that they want free, unlimited support for the life of the products, not just for 180 days," said Paul Coffin, Corel director of technical support.

Customers can call (800) 451-5151 for more information. Corel said it will also honor outstanding support agreements. □

PANASONIC SHIPS PB CD-ROM DRIVE

Complaining about Apple's latest line of portables has become as popular as burning witches once was. However, one of the most common complaints — the lack of a CD-ROM drive — has now been addressed by Panasonic Communications & Systems Co.

From its slim charcoal-colored chassis to its standard SCSI interface, the KXL-D742 external quadruple-speed CD-ROM drive was optimized for the PowerBook, Panasonic said. The $399 drive can run off a power adapter, six AA batteries or a rechargeable battery pack.

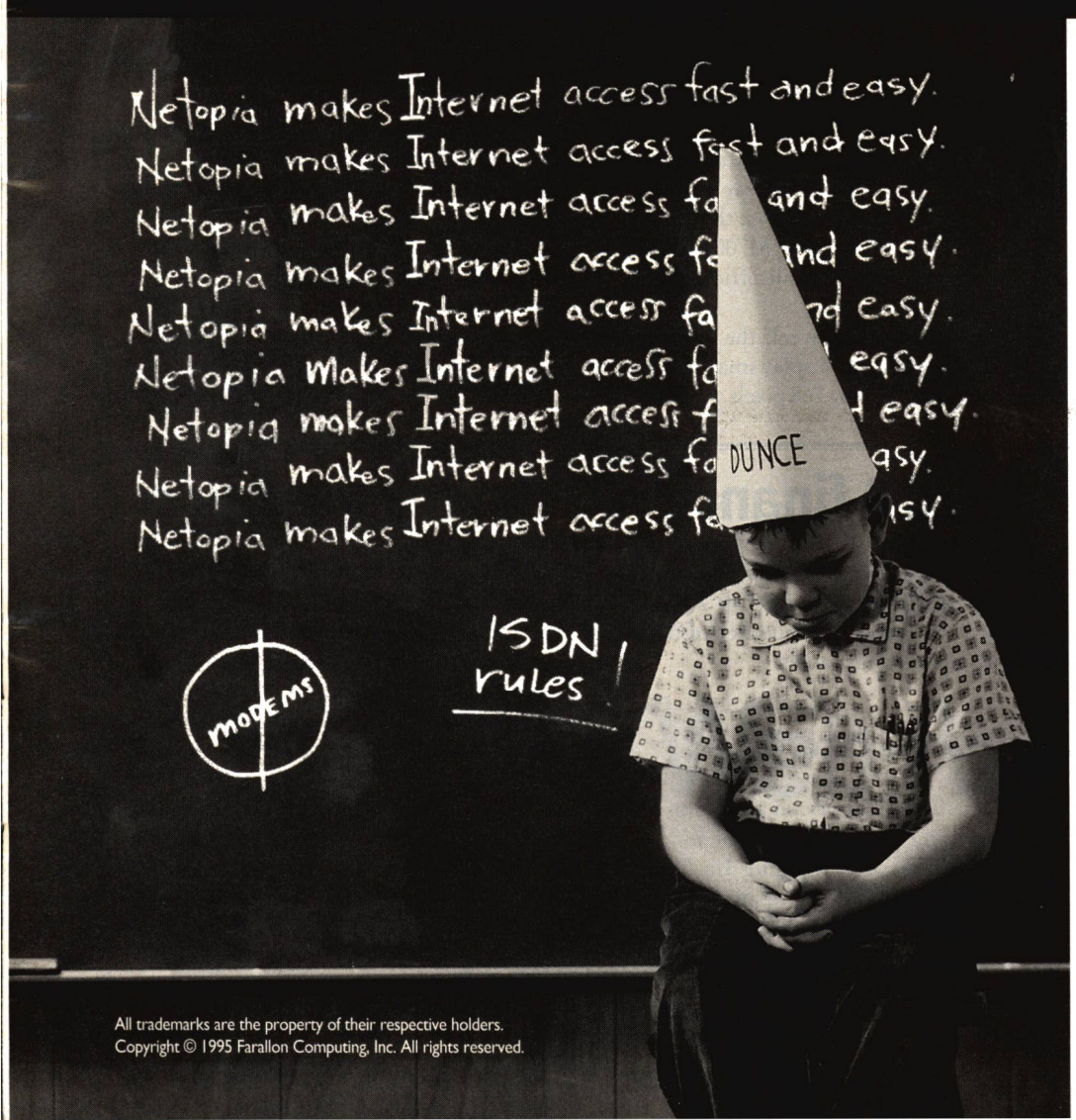
The KXL-D742 can operate off batteries for two hours as a data drive or four hours as an audio player; however, data transfer rates may vary when running off batteries, the company said.

In addition to CD-ROM data and Audio CD, the drive supports multisession Photo CD and CD-ROM XA standards. It can be used as a standalone Audio CD player and comes with push-button play, pause and track controls; it also includes a time, track and status LCD display and a volume control for the stereo-out port. It has a 128-Kbyte cache and a Fast SCSI-2 interface.

The drive ships with a 50-pin to HDI-30 (PowerBook) SCSI cable; it also includes FWB Software Inc.'s CD-ROM ToolKit 1.5.9 and CDT Remote for controlling Audio CD playback.

Panasonic Communications & Systems Co. of Secaucus, N.J., can be reached at (201) 348-7000 or (800) 742-8086; http://www.panasonic.com. — By Andrew Gore

High-speed Internet access for your whole office is finally a no-brainer.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HP to unveil color laser

By Matthew Rothenberg

Hewlett-Packard Co. next week will tone up its color output line with an enhanced version of the company's color laser printer.

The $9,195 Color LaserJet 5M replaces HP's current Color LaserJet and is based on the same 300-dpi Konica engine as its predecessor. The new printer also features a 40-MHz AMD 29040 RISC processor, compared with the 20-MHz chip in the original model.

With the Color LaserJet 5M, HP will introduce Image REt 1200, a superset of HP's Resolution Enhancement Technology, which smooths rough edges on printed text and graphics. The new version offers improved color blending and a text resolution of up to 1,200 dpi, the company said.

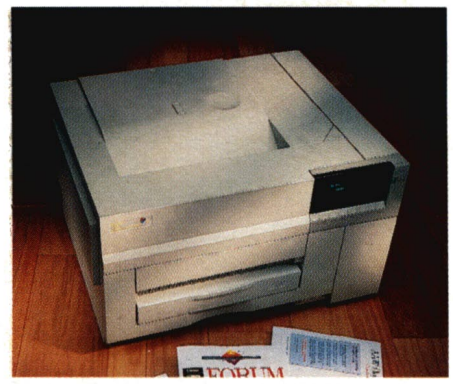
According to Michael Zeis, publisher of the Color Business Report of Uxbridge, Mass., the Color LaserJet 5M represents a marked improvement over HP's earlier effort. "Pages truly do look significantly better" with the new continuous-tone capabilities, Zeis said. In particular, he said, the improved imaging algorithms will help HP market its printer as a device for color photos and spot-color text.

The printer outputs 10 and 3 pages per minute, respectively, for black-and-white and CMYK documents. It outputs letter- or legal-size color pages and tabloid-size monochrome sheets, HP said.

The LaserJet 5M includes Adobe PostScript Level 2 and enhanced HP-PCL 5 languages as well as 35 Type 1 fonts. It will come standard with 36 Mbytes of RAM and can be expanded to 76 Mbytes.

The printer offers Ethernet, LocalTalk and parallel interfaces standard; it also supports the company's JetDirect line of multiprotocol networking cards. It comes with a 250-sheet letter-size paper tray.

In addition, Zeis said the new printer's lower per-page costs will make it an even more formidable competitor in the business market. "The competition is just more expensive," Zeis said.



Identical to its predecessor on the outside, HP's new Color LaserJet 5M offers a duty cycle of 30,000 pages per month.

The company said the Color LaserJet 5M uses higher-quality toners that lower the per-page cost of output; black-and-white and color pages with 42 percent coverage cost about 3.5 and 11.7 cents per page, respectively.

Hewlett-Packard Co. of Palo Alto, Calif., is at (800) 527-3753; fax back (800) 333-1917; http://www.hp.com. □

NEC presents new CRT technology

By Joanna Pearlstein

NEC Technologies Inc. this week will take the wraps off a pair of monitors using a new display technology.

Dubbed CromaClear, the new CRT technology combines shadow-mask and aperture-grille designs in a "slot mask," which improves focus, color saturation and contrast, NEC said. Instead of dot or stripe pitches, CromaClear monitors have mask pitches, described as the distance between like-colored phosphors on the CRT mask.

NEC's first CromaClear displays are two multimedia monitors, the MultiSync M500 and MultiSync M700, which are aimed at business, small-office and home-office markets.

Slated to ship this week, the 15-inch M500 will cost $599 and display images at resolutions up to 1,024 by 768 pixels at 75 Hz.

The 17-inch M700, due in May, will support a maximum resolution of 1,152 by 870 pixels at 75 Hz. The cost is expected to be $899. Both displays will have a 0.25mm mask pitch.

The CromaClear models are NEC's first with multimedia capabilities. Both units will offer integrated 2-watt stereo speakers as well as microphone and headphone jacks.

The displays will ship with an updated version of NEC's on-screen controller that can adjust sound volume as well as monitor settings. A new feature optimized for digital video will apply different brightness and contrast settings for user-defined areas of the display.

NEC Technologies Inc. of Boxborough, Mass., can be reached at (508) 264-8000 or (800) 632-4636; http://www.nec.com. □

MYOB finance rev shakes out bugs

BestWare Inc. last week shipped a maintenance upgrade to its MYOB Accounting software that fixes a number of bugs and adds updated tax tables.

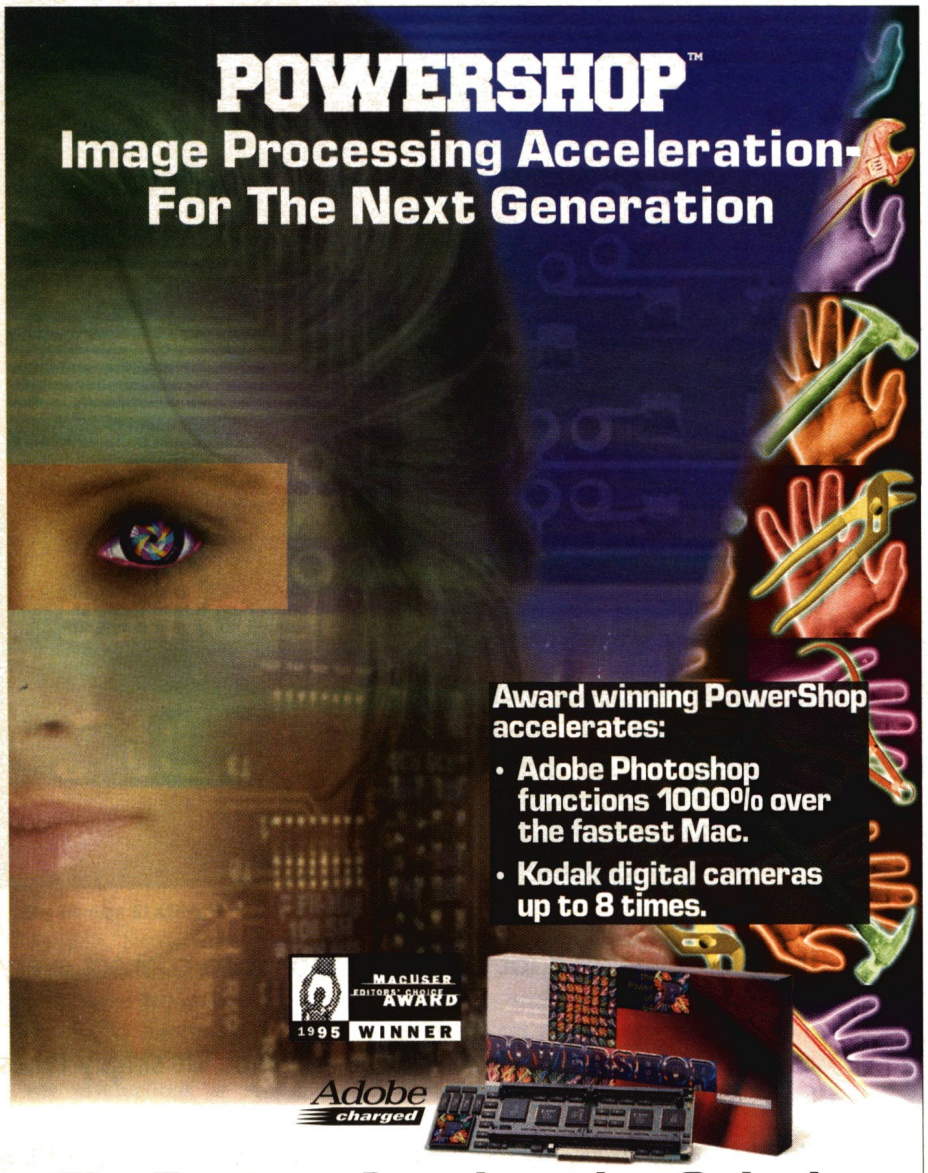
Version 6.0.1 of the $90 MYOB Accounting and $140 MYOB Accounting with Payroll provides accurate totals in job headers and fixes errors in employee-accrual reports and rounding in tax calculations. The program also takes care of a problem with custom report preferences, BestWare said.

The update is available for downloading from the company's support areas on CompuServe and America Online; a floppy version costs $9.

BestWare Inc. of Rockaway, N.J., is at (201) 586-2200 or (800) 322-6962; fax (201) 586-8885; njcustserv@bestprograms.com; http://www.bestware.com. □

For the record

The 02.26.96 story on short-run color printing (Page 26) did not list all of Electronics for Imaging Inc.'s OEM partners. The companies include Canon Inc., Eastman Kodak Co., Minolta Corp., Oce Group, Ricoh Corp. and Xerox Corp.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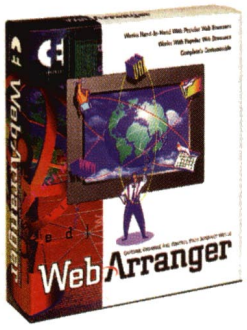

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CE SOFTWARE

Nakamichi speaks up

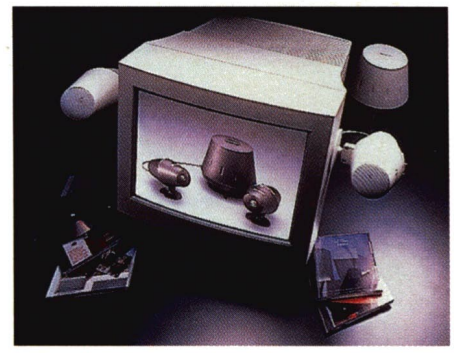
Known for its high-end consumer products, Nakamichi America Corp. recently made sound waves in the multimedia market with a new low-priced speaker system.

The company's $199 SP-3d is a three-piece system comprising a pair of compact satellite speakers and a subwoofer; each speaker is powered by its own amplifier. The system uses the Sound Retrieval System (SRS) 3-D stereo audio technology from SRS Labs Inc. of Santa Ana, Calif. According to Nakamichi, SRS creates a panoramic 3-D experience without a center channel.

The satellite speakers are magnetically shielded, letting users place them next to a monitor or external data storage device. The subwoofer uses a face-down orientation and has an integrated reflector that can deliver consistent sound quality on any resting surface, the company said.

Controls for volume, balance and the SRS system are on the right satellite speaker.

Nakamichi America Corp. of Torrance, Calif., can be reached at (310) 538-8150; fax (310) 324-7614. □



Panoramic audio: Nakamichi's new SP-3d speaker system generates 3-D sound.

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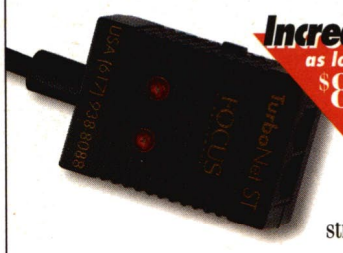

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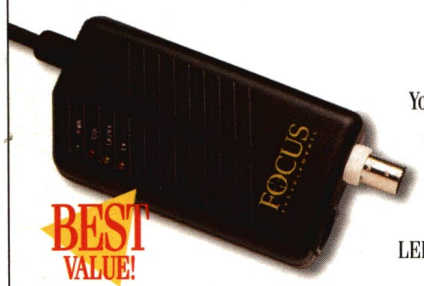

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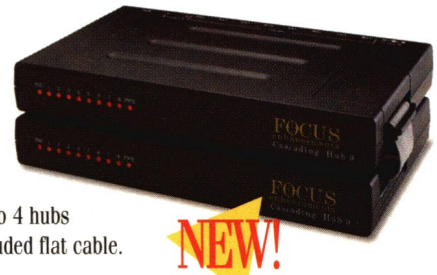

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Olympus to ship 2.6GB PowerMO

Olympus Image Systems Inc. this month will release its PowerMO 2600/Mac, a 5.25-inch magneto-optical drive supporting 2.6-Gbyte cartridges.

The $2,199 drive has a spindle speed of 3,600 rpm and offers an effective seek time of 13 milliseconds, Olympus said. The Fast SCSI-2 device uses a 4-Mbyte RAM buffer.

With 2.6-Gbyte media, the PowerMO 2600 has sustained read and write data transfer rates of up to 4.1 and 1.2 Mbytes per second, respectively, the company said. The drive offers slower data transfer rates with 1.3-Gbyte and 650-Mbyte cartridges.

It will come with Software Architects Inc.'s FormatterOne Pro utility and driver software as well as a $90 2.6-Gbyte cartridge.

Olympus Image Systems Inc. of Melville, N.Y., can be reached at (516) 844-5000 or (800) 347-4027; fax (516) 844-5353; http://www.olympusamerica.com. □

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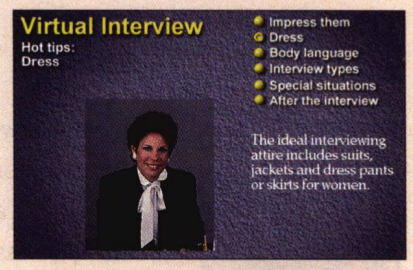

Individual Software Inc.'s Resume-Maker Deluxe CD for Macintosh may offer hope to workers feeling the downsizing blues.

Now shipping, the $39.95 application lets users compose résumés and cover letters as well as track appointments. It offers 17 résumé styles.

In addition, the CD includes more than 50 interview techniques shown via video clips. The tips lead users through correct deportment and dress, as well as how to handle salary and personal issues.

Individual Software Inc. of Pleasanton, Calif., is at (510) 734-6767 or (800) 822-3522; fax (510) 734-8337.

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ADOBE ANTES UP

Adobe Ventures L.P. and Hambrecht & Quist have agreed to invest $2.5 million in plug-in developer Extensis Corp.

Polaroid takes a shot at digital camera users

By Kelly Ryer

Instant-photography trailblazer Polaroid Corp. will enter the digital age in April when it ships the PDC-2000, the company's first digital camera.

The camera will be available in three versions. The $4,995 PDC-2000/60 can hold 60 images in 60 Mbytes of built-in flash EPROM, while the $3,695 PDC-2000/40 will contain a 40-Mbyte drive. A third model, the $2,995 PDC-2000/T, will be tethered directly to a computer.

Polaroid's proprietary CCD (charge-coupled device) uses rectangular pixels and will capture 1 Mbyte of 24-bit image data at a resolution of 1,600 by 1,200 pixels. When downloading images to a computer, users can also save images at 800 by 600 pixels. The camera itself will not compress images, however.

With its stylish black design, Polaroid's PDC-2000 digital camera looks like it would find a place on Batman's tool belt. It features a movable CCD and sonar-equipped autofocus.

According to Polaroid, the PDC-2000's autofocus mechanism features proprietary sonar autoranging technology to move the CCD while the lens remains stationary. The CCD moves to one of 60 "focal zones," which range from 10 inches to infinity. The camera will use an 11mm wide-angle lens (equivalent to a 38mm lens on a 35mm camera), and Polaroid will also offer a 17mm lens, though pricing has not been set.

The PDC-2000's equivalent ISO rating is 100; shutter controls range from 1/25th to 1/500th of a second. Users must wait 7 sec-

See Polaroid, Page 12

New PostScript RIPs tear up Seybold show

Software, servers line up in Boston

By Kristin Balleisen

Show goers were treated to an advance look at a slew of new PostScript RIPs and RIP additions at February's Seybold Seminars Boston 96.

▶ **Harlequin Inc.** of Cambridge, Mass., introduced an upgrade to its RIP-management system. The new software is currently being evaluated by the company's OEM partners, Harlequin said.

According to Harlequin, ScriptWorks 4.0 will fold in the company's color-management system and add a number of features for editing display lists.

The Level 2 RIP's new support for symmetrical multiprocessing compression and multithreading is designed for users seeking to drive digital presses and 16-up platesetters.

In addition, the company said its new EasyTrap option will be released to OEMs by April. According to Harlequin, EasyTrap will provide an automatic trapping solution that runs in conjunction with ScriptWorks; the software will let users trap a job as it is being RIPed.

▶ **Screen USA** of Rolling Hills, Ill., showcased its AD-310PM, a CPSI (Configurable PostScript Software Interpreter)-based RIP for the Power Mac 9500 series.

The RIP will include Adobe Systems Inc.'s PixelBurst Accelerator, which works with onboard RAM to speed output, the company said.

▶ **Colorbus Inc.** of Irvine, Calif., announced an upgrade to its Cyclone Imaging System software.

Available this spring, Cyclone 2.0 will include a Remote Tools module that lets remote users view multiple Cyclone servers on a network, monitor job status, reorder jobs and set preferences.

See RIPs, Page 12

Real-time animation on Web

By James Staten

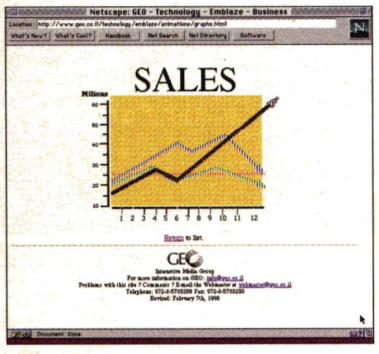
Adding moving eye candy to a Web page will soon be possible without hiring a Java or Lingo programmer, thanks to an animation authoring system from Israeli company GEO Interactive Media Group.

The company last week shipped a beta version of Emblaze Creator, software designed to let Webmasters serve full-color, full-motion animation files to Web browsers in real time over a 14.4-Kbps connection.

Emblaze Creator features an animation engine that compresses full-screen color animation files into a proprietary file format small enough for delivery over the Internet. According to the company, Emblaze will compress about 10 minutes of television-quality cartoon animation into 1 Mbyte of disk space. Users will be able to integrate sound and hyperlinked hot spots into the streaming animations, GEO said.

Pricing and a final ship date have not been set, the company said.

Through a free Emblaze plug-in for Netscape Navigator 2.0 or Microsoft Corp.'s Internet Explorer 2.0b3, users can view the animation files while downloading them. Performance over a 14.4-Kbps connection is 12 to 24 frames per second, according to GEO. The plug-in is currently available for 680x0-based and Power Mac machines as well as Windows 3.1; Windows 95 and Unix versions are in development.



Net cartoons: GEO's Emblaze Creator will let animators deliver near TV-quality playback over the Internet.

GEO Interactive Media Group of Jerusalem can be reached at 972-3-573-3288; fax 972-3-573-3290; info@geo.co.il; http://www.geo.co.il.

XTensions tap into document management

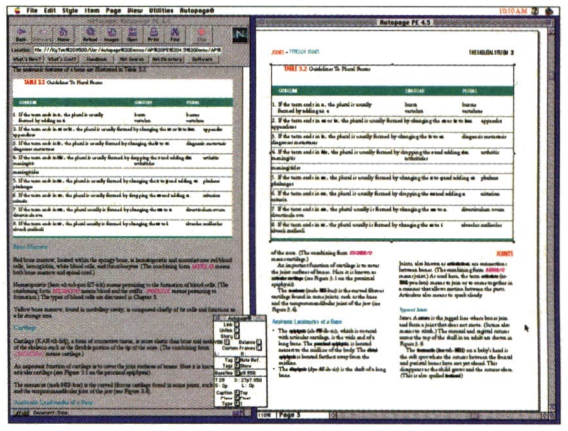
By Matthew Rothenberg

February's Seybold Seminars Boston 96 offered QuarkXPress aficionados two new timesavers. KyTek Inc. and NRG Software LLC debuted QuarkXTensions designed to ease the task of document creation.

KyTek delivered upgrades to its Autopage XTension packages for automatic book pagination. Autopage PE and Pro have both been updated to Version 4.5.

The new version of Autopage PE, priced at $945 and free to all current users of the software, features automatic creation of HTML pages from XPress documents via an interface to BeyondPress 2.0, Astrobyte LLC's $595 XTension that lets users convert XPress files to HTML.

KyTek's Autopage PE software lets users place graphics and tables in line and automatically generates hot links to footnotes and margin notes.



Separated at birth? Autopage PE 4.5 lets users generate HTML pages automatically from XPress documents.

The software also features an interface to Headers&Footers, an XTension written by British developer Barry Palmer. XPress users can now generate up to nine levels of headers and footers automatically. Autopage PE 4.5 lets users alter the alignment of heads and margin notes depending on their location on a page and apply several master pages to documents. The upgrade also allows users to specify stepped variations in leading between consecutive spreads, KyTek said.

Autopage Pro 4.5, which costs $7,500 for one workstation and

See XTensions, Page 12

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As Mary Lou Johnson, VP of Reservation Systems for Budget Rent a Car Corporation, puts it, *"The increased speed and powerful networking capabilities of our Power Macs are additional factors contributing to improved productivity and time savings."*

Thanks, Mary Lou. There's a lot more to come.

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Polaroid

From Page 10

onds between exposures, or 12 seconds when using the 15-foot internal flash.

A labeling feature will let users mark images with up to 10 numbers or letters. The camera will also record information such as time, date and distance from its subject.

The 2-pound camera will connect to a Mac or Windows machine via SCSI-2 and ship with an Adobe Photoshop plug-in.

Polaroid will also include PDC-2000 Direct, an application that will let users see thumbnails, download images directly and control the camera itself via an electronic viewfinder.

"Polaroid needs to move into the digital world," said analyst Kristy Holch, principal of InfoTrends Research Group in Plymouth, Mass. "Their whole cash cow of instant photography won't last forever. They've moved cautiously because they don't want to make a mistake with their foray into the market.

"They want to be spot-on, but it's a tall order in a developing marketplace," Holch said. "Customers don't even know what they want all the time."

Polaroid Corp. of Cambridge, Mass., is at (617) 386-2000 or (800) 816-2611, Ext. 290; fax (617) 386-9339; http://www.polaroid.com. □

XTensions

From Page 10

$500 for each additional seat, includes the enhancements of Autopage PE 4.5 and also features new capabilities for automating the layout of directories and yellow pages, KyTek said.

The high-end package can distribute display ads in a directory so they touch the relevant listing. Autopage Pro can place filler elements automatically and split text listings contained in a tinted box between columns. KyTek said the upgrade supports multiline category-continued lines and lets users situate lines at the top of columns, pages or spreads.

Upgrades are free to Autopage Pro users covered by KyTek's service contract; those without the contract must pay $1,000.

NRG demonstrated Font Fetch, a new XTension designed to simplify tracking down errant fonts within XPress documents.

Font Fetch, which is slated to ship this month for $99.95, requires Version 3.0 of Suitcase, the latest upgrade to Symantec Corp.'s font utility (see story, Page 23). According to NRG, Font Fetch locates and opens any fonts in an XPress document automatically.

The company said it is working on versions of Font Fetch for Adobe PageMaker and applications compatible with Adobe Photoshop.

KyTek Inc. of Weare, N.H., can be reached at (603) 529-2512; fax (603) 529-2015; sales@kytek.com.

NRG Software LLC of Milwaukee can be reached via phone and fax at (414) 545-0353; info@nrgsoft.com; http://www.nrgsoft.com. □

RIPs

From Page 10

The upgrade will also ship with trapping and overprinting capabilities, Colorbus said.

Users of previous versions will be able to upgrade, although pricing has not yet been set; the software will also be bundled with new Cyclone RIPs, also set to ship this spring. Colorbus declined to comment further on the forthcoming Cyclones.

▶ **Vivid Image Co.** of Torrance, Calif., unveiled its newest RISC-based color server.

The Vermillion, which starts at $8,995, is slated to ship in June; according to the company, the server will accommodate up to four wide-format inkjets at a time, including EnCAD Inc.'s NovaJet plotters and Hewlett-Packard Co.'s DesignJet 750.

According to the company, the new RIP will ship with either a 100-or 230-MHz DEC Alpha processor. It will include Vivid Color closed-loop calibration for more-accurate color management, as well as an LCD touchscreen, job-management features and autoscaling functions.

▶ **Rampage Systems Inc.** of Waltham, Mass., showed off Version 6.0 of its new RIP system, which features built-in Open Prepress Interface and preflight capabilities as well as automatic trapping and rasterization.

Rampage said the software, available now, breaks jobs into two stages — rasterization and on-the-fly screening with the Rampage screening board.

The software also lets users generate proxy, for-position-only EPS files when creating signatures for pages the RIP has trapped, rasterized and digitally proofed. Once the signature is processed, the software can exchange the proxy for the rasterized pages.

Users will also be able to merge Scitex CT/LW files with PostScript files, Rampage said.

▶ **ScanView Inc.** of Foster City, Calif., demonstrated new versions of its RipMate 2.0 control software. The upgrade is available in two configurations: the $11,500 NT-based RipMate Basic and the $14,500 RipMate Extended.

The single-user RipMate Basic is designed to drive the company's DotMate 4000 drum imagesetter, while the multi-user RipMate Extended supports the company's entire DotMate line of imagesetters.

According to ScanView, RipMate 2.0 is based on Harlequin's Level 2 PostScript interpreter, ScriptWorks 3.3. The upgrade adds improved page-layout capabilities as well as a Fill Film feature that lets users fit multiple jobs onto a single piece of film.

Users of Version 1.6 or later can upgrade for $195; upgrades are $1,700 for other users. □

CYBERFINDER

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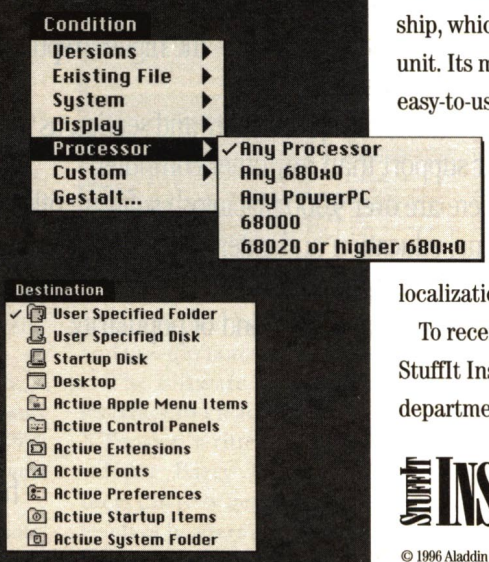

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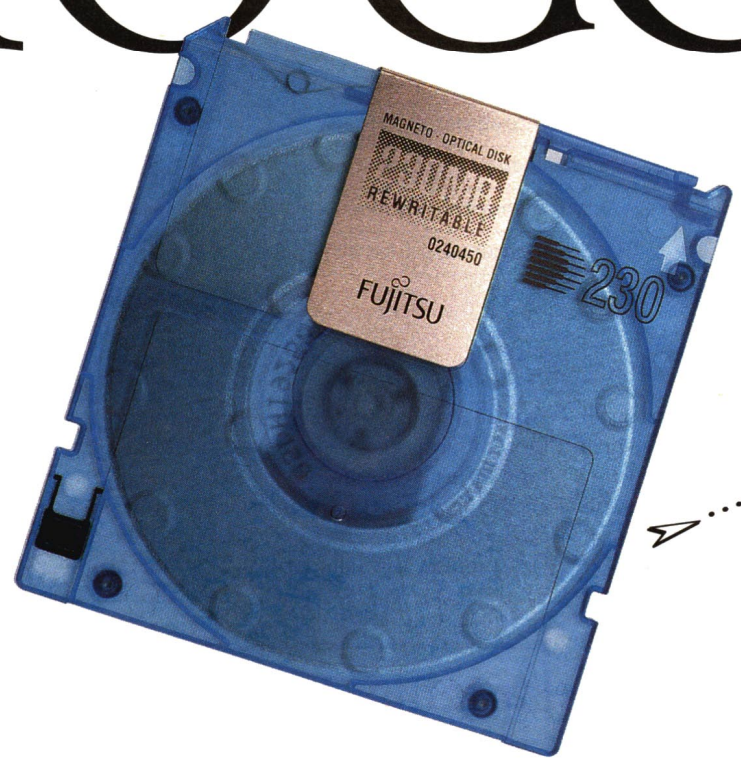

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IMAGING MAGAZINE PRODUCT OF THE YEAR 95

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POWERBUILDER HERE

Powersoft's dev tool is robust, but it has speed problems and lacks a Power Mac version. See Reviews, Page 23.

System 7.5 Update 2.0 puts Mac OS together

Version 7.5.3 has Open Transport 1.1

By Clifford Colby

Apple should make a lot of users happy this week when it releases System 7.5 Update 2.0, the latest upgrade to the Mac OS. The company will include everything from previous versions of System 7.5 and throw in the latest versions of several pieces of Apple software.

The update, which changes the OS version number to 7.5.3, is designed to consolidate all the current system software variations into one release. It is available this week on Apple's Internet sites as well as through on-line services and user groups. Users can also get the update from Apple for $13, which covers shipping and handling costs. To install the update, users must be running a version of System 7.5 on their machines.

This spring, Apple will offer what it calls a unified release of System 7.5.3, which will run on all Macs going back to the Plus. Apple said it plans to bundle the operating system with new machines and sell it through retail channels.

System 7.5 Update 2.0 includes Version 1.1 of Open Transport, Apple's new networking model. Open Transport 1.1 adds support for NuBus, communications slot and PC Card network interface cards; the initial version, released last summer, was tailored to PCI

See OS, Page 16

Mac OS Update: What's new and improved

COMPONENT	WHAT'S NEW
Open Transport 1.1	Support for 68030 and 68040 Macs and NuBus Power Macs; improved performance for fast networking links; optimized for server applications; several bug fixes
Finder 7.5.4	Quicker file copies; improved overall speed on 68040 and Power Macs
Apple Guide 2.0	Bug fixes
AppleShare Workstation 3.6.1	Faster AppleShare client
QuickDraw GX 1.1.3	Expanded printer support
QuickDraw 3D 1.0.3	Improved memory management
QuickTime 2.1	New audio compression formats
Modern Memory Manager, Resource Manager, SCSI Manager, SerialDMA	Native

Java, server tools star at WebEdge III

By James Staten

Cupertino, Calif. — More than 200 Mac Webmasters gathered at Apple's headquarters here for WebEdge III. The semiannual event offered attendees an opportunity to evaluate tools that link the Mac platform to the Internet.

Featured topics included:

▶ **Bottomless Java.** Metrowerks Inc. of Austin, Texas, gave attendees the first U.S. demo of Java Code Warrior. Due in May with Code Warrior 9, the Java kit will include a compiler, virtual machine, applet viewer and debugger written in Code Warrior Power Plant. Metrowerks said its Java tools will be "significantly faster" than those from Sun Microsystems Inc. Beta testing starts this month.

Sharing the stage with Metrowerks were Symantec Corp. of Cupertino, Calif., and Natural Intelligence Inc. of Cambridge, Mass. Symantec showed Caffeine, its Java plug-in for C++ 8.0. Meanwhile, Natural's Roaster took some hits from attendees for not including Java networking or sound classes. The company said both class libraries were in beta and should ship in April.

▶ **A faster Web server.** Maxum Development Corp. demonstrated Rush Hour, a $295 Web server optimized for graphics delivery. The product lacks many of the administrative functions of a full-featured Web server, allowing it to "flood the TCP pipe with graphics," said John O'Fallon, president of the Streamwood, Ill., company.

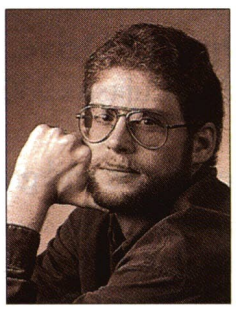
▶ **A Point-to-Point fix.** Apple announced that MacPPP Version 2.5 will be available next week. The latest revision will fix a virtual-memory bug as well as a host of other problems.

Other highlights included demos of QuickTime 2.2, due in April, which will support AIFF (Audio Interchange File Format), MIDI, MPEG and Karaoke files. Apple also showed the latest version of its AppleWebSearch CGI (Common Gateway Interface), which supports relational narrowing of searches. It also includes a search engine based on the company's VTwin natural-language

See WebEdge, Page 17

WORKING THE NET ADAM C. ENGST

Poring over Java: It's still mostly hot water



It's time to look at the latest four-letter word on the Internet. No, not some clever acronym for the debacle of the communications decency act — I'm talking Java.

Java is a programming language developed by Sun Microsystems Inc. Despite the hype, Java is not a user tool (sorry, HTML authors). It has interesting possibilities, but for the moment, and especially on the Mac, Java is mostly hot water.

Java is similar to C++ in that its syntax makes AppleScript look like Baby-Talk. However, Java differs from most languages because it is used to build applets, instead of full-blown applications, that run inside a piece of software called a "virtual machine." Once there is a virtual machine for a platform, all Java applets should work on that platform.

What's interesting about Java applets is that an applet's code can be downloaded from the Internet and

See Engst, Page 16

Internet Explorer beta update: It works, really!

By James Staten

Microsoft Corp. released Beta 3 of Internet Explorer 2.0 for the Mac last week. Users will be pleased to hear that along with several new features, Version 3 works.

Making a quick recovery from its previous public beta, Microsoft said Beta 3 resolves most of the crashing problems that made Beta 2 virtually unusable. The first Mac Explorer beta was released in January (see 01.29.96, Page 62) but did not have the difficulties Beta 2 exhibited, testers said.

In addition to bug fixes, Beta 3 can now use Netscape Navigator plug-ins and has a built-in QuickTime viewer. A Finder-like interface has been added to Favorites, Explorer's bookmark facility; Favorites now has full Macintosh Drag and Drop support.

A Virtual Reality Modeling Language viewer that supports 3DMF (3-D Metafile Format) documents was also released for Beta 3. However, Explorer does not yet allow users to view 3-D models in the main browser window.

Internet Explorer is available for both PowerPC- and 680x0-based Macs; it can be downloaded from Microsoft's Web site at http://www.microsoft.com/windows/ie/mac/macdl.htm. A final version is expected later this month.

Microsoft Corp. of Redmond, Wash., can be reached at (206) 882-8080 or (800) 426-9400; fax-back (800) 727-3351; info@microsoft.com.

Plugged in: Microsoft's latest beta of Internet Explorer borrows from Netscape Navigator, supporting its plug-in architecture. A VRML browser and QuickTime viewer are also included.

Some sound reasons to buy a Mac.

home video-game systems as well as many arcade machines.
Top PCs in Customer Loyalty[1]
#1 Apple
#2 Gateway 2000
#3 Compaq
#4 Dell
#5 Hewlett-Packard
and shadows. Where the action in a two-dimensional game is confined to a predefined space or track, true 3D software creates environments that can be explored in any direction.
Most Reliable PCs[2]
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#2 Compaq
#3 Hewlett-Packard
#4 Digital
#5 Micron
Trouble is, those games may be incompatible with other vendors' accelerators. Chip or board
Macintosh Performas enabled Apple to boost sales in the period 25% and regain its year-earlier ranking.
Top Computers in Education[3]
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#2 IBM
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Engst

From Page 14

executed directly inside the virtual machine, right off the Web server. Since virtual machine code is being built into Web browsers, Java applets can turn static Web pages into interactive experiences. Just as you launch applications from a file server, you'll be able to run Java applets from code on Web sites.

JavaScript is a much-simplified scripting language based on Java. Its code lives in HTML pages inside <SCRIPT> tags and is interpreted by the Web browser.

A visit to Demo City

Gamelan, at http://www.gamelan.com, has a large applet collection. However, most of the Java applets I saw there felt more like demos than productivity enhancers. They looked good and performed as advertised, but none was compelling. Several caused Netscape Navigator 2.0 to crash, which may indicate that applets aren't especially resistant to bugs.

I'm sure we'll see compelling Java applets soon; I'm waiting for a program that can create functional Java applets without coding.

After examining a bunch of Java applets, I think security could prove to be a major problem. Java, theoretically, has safeguards to prevent unauthorized access; however, where there's a self-proclaimed secure system, there are crackers devising ways around those safeguards. If nothing else, already-flaky browsers will become even more unstable upon encountering buggy Java code.

JavaScript also raises security concerns. I've seen a pathetically simple HTML page that uses JavaScript to steal e-mail addresses from Netscape Navigator preferences; I found another page that tracks cached Web paths and reports them back to its host server.

Where's what?

Netscape now has a Java-enabled beta of Navigator 2.0 for the Mac; no other Mac browser currently supports the technology.

For developers, there's Natural Intelligence Inc.'s Roaster DR1.1, Symantec Corp.'s Caffeine and JavaSoft's first beta of the Mac Java Development Kit. These goodies are at the following sites: Navigator 2.0, ftp://ftp1.netscape.com/pub/MacJava; Roaster, http://www.natural.com/pages/products/roaster/index.html; Symantec, http://www.symantec.com/lit/dev/javaindex.html; Java Development Kit, http://www.javasoft.com/JDK-1.0/index.html. You might also want to stop in at the Apple-flavored Java site, which contains links to numerous Java resources and mailing lists. Go to http://www.seas.upenn.edu/~mcrae/projects/macjava. □

Adam C. Engst is editor of TidBITS and author of "Internet Starter Kit for Macintosh." He can be reached at interq@macweek.com or http://king.tidbits.com/.

OS

From Page 14

Macs only. The new version includes support for token-ring cards and is tuned to faster networking links, including Fast Ethernet, Fiber Distributed Data Interface and Asynchronous Transfer Mode.

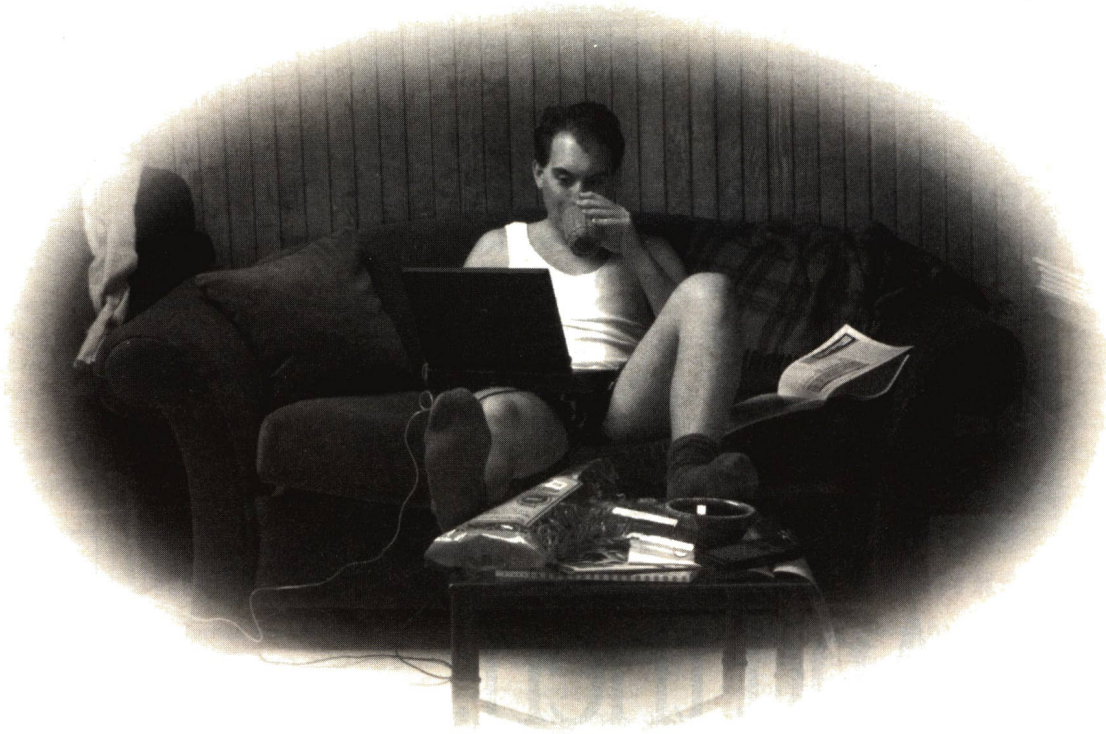
Apple said Open Transport 1.1 has improved compatibility with Point-to-Point Protocol (PPP) and Serial Line Internet Protocol (SLIP), and users no longer have to restart between PPP and SLIP sessions.

Open Transport 1.1 is geared toward server applications and, according to Apple, does a better job of handling simultaneous multiple communications sessions than the original version did. Although Open Transport can now run on non-PCI Macs, the architecture is not yet compatible with 5200, 5300, 6200 and 6300 models.

The system update also features a number of improvements to the OS. The new Finder hastens file copies, uses a processor's cache more efficiently and speeds application launch times when virtual memory is on. The update also comes with a new Serial-DMA driver as well as native Resource Manager and SCSI Manager software.

Apple solved some small but annoying problems that dogged earlier revs. For example, comments in a file's Get Info window are now saved when a user rebuilds the desktop; the installation process has been spruced up, so updated components will be in the same folders as they were before the update.

In addition, System 7.5 Update 2.0 includes the latest versions of AppleShare Workstation, QuickTime, QuickDraw GX, QuickDraw 3D and Apple Guide. □



WebEdge

From Page 14

engine and a project called WebFinder that adds a Finder-like interface to FTP servers.

Macromedia Inc. of San Francisco showed Shockwave for Director and announced that the Power Mac-native version of the Netscape Navigator plug-in will be out this week.

Adobe Systems Inc. of Mountain View, Calif., talked a bit about PageMill and SiteMill 2.0. PageMill, expected to go beta in June, will feature a graphical, drag-and-drop interface for creating tables and a find-and-replace function that will let users turn all occurrences of a word into hyperlinks. SiteMill 2.0, due in the second half of 1996, will be able to ping external links to make sure they are valid, export links within a site as a bookmark file and enable subsite management.

Maxum showed PageSentry, a $150 utility that can send notifications when problems arise with a Web server. Rather than simply pinging a page, which tests only the TCP/IP connection, the tool actually downloads a page to verify that the server is operating properly. It can send notices via e-mail, to a pager or through any AppleScript-aware application. □

More information about the events at WebEdge can be found at http://www.webedge.com.

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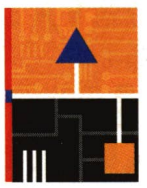

- **Pictorius builds Web tools**
- **Eastgate handles bookmarks**

Prograph developers will soon be able to build Web-savvy applications using the Internet Authoring Toolkit from **Pictorius Inc.** of Halifax, Nova Scotia. Due this summer, the kit will let users create Web servers with searchable forms; the Authoring Toolkit will work with Peregrine, Pictorius' client-server development tool. ... Web-site administrators looking to ease CGI (Common Gateway Interface) clutter can turn to **Webink Ltd.** of Brussels, Belgium, which now offers a new multipurpose CGI. Priced at $475, Webink Lite handles user registration and tracking functions, creates forms and maps, and provides security management and searching capabilities. ... Sunnyvale, Calif.-based **Sonic Systems Inc.** is now offering two hot-swappable PC Card Ethernet adapters for the PowerBook 190 and 5300 series. The $169 ConnectCard TwP supports 10BASE T; its sibling, the $199 ConnectCard TnT, comes with a thin-net media connection. ... **Eastgate Systems Inc.** of Watertown, Mass., has devised a new way to organize bookmarks — spatially. Instead of a hierarchical list, the $49.95 Web Squirrel utility lets users group URLs (uniform resource locators) in a two-dimensional matrix that can be searched by keyword or topic. ... **Biscom Inc.** of Chelmsford, Mass., has released a new Mac client for Faxcom for NetWare, the company's Novell NetWare-based fax server. Scheduled to ship March 15, Faxcom will start at $495. ... Norcross, Ga.-based **Hayes Microcomputer Products Inc.** is shipping the Hayes Optima 288 Business Modem, a $450 28.8-Kbps fax modem. The modem includes Flash ROM, a distinctive-ring system, and support for Caller ID and remote configuration. □

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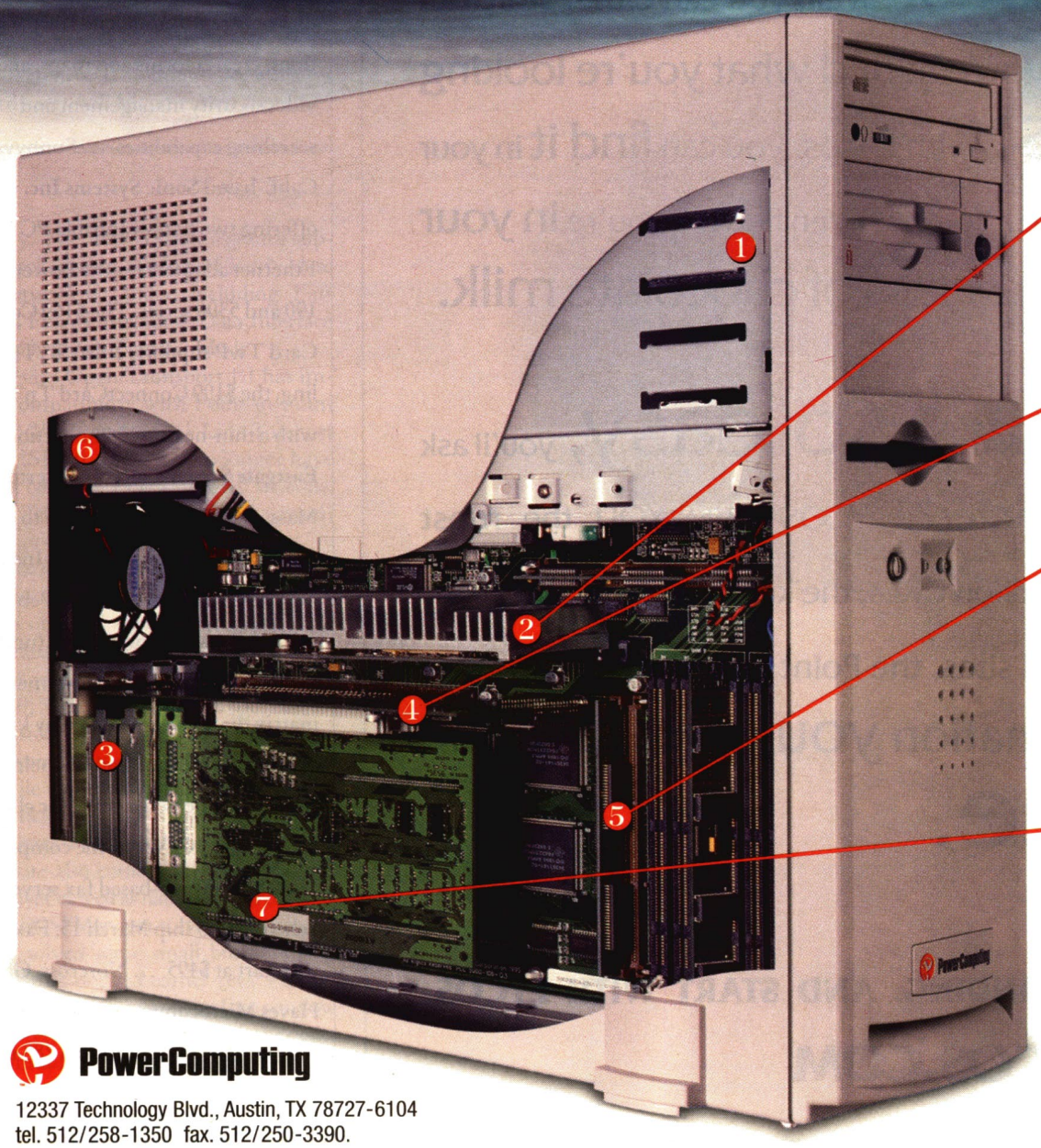

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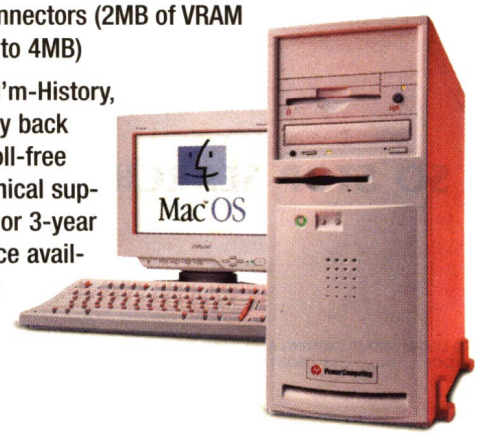

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BPA INTERNATIONAL

Back to the developer question

Two weeks ago, at Seybold Seminars Boston 96, Netscape Communications Corp. top executive Jim Clark and Apple's Gilbert Amelio shared center stage at the keynote address.

Clark was the more animated of the two CEOs, but Amelio held his own. He was obviously feeling the effects of the massive situation he's undertaken, and he stumbled in only a few places — the most painful being when he was asked about the Apple-derailed Worldwide Publishing Consortium, and told attendees that it "sounds like a good idea."

What concerned us more was not what Amelio said, but what he didn't say. Someone asked Clark and Amelio about the paucity of Netscape Navigator plug-ins for the Mac, and Clark said that from his company's view it was a matter of economics. It wanted to develop for the Mac, and would continue to do so, but it had to put its resources with the market share leader first.

Clark then added that an unnamed Unix hardware manufacturer wanted to make sure that it was ready with plug-ins when Navigator 2.0 shipped. To make certain that it happened, the company sent one of its principal engineers to live at Netscape during the development process.

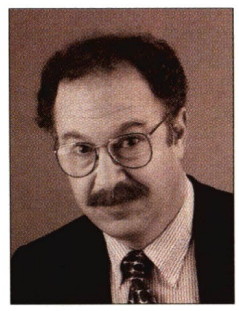
Amelio would have won the crowd over forever had he leaned into the mike and told Clark that if that's all it took he'd have one of Apple's finest on Netscape's doorstop the next morning, sleeping bag in hand. Instead, the question passed; the chance was lost.

The developer question is one that we have raised repeatedly, and it is one that Apple must devote time to, both internally and publicly. Inside, they've hired the best developer-relations gun available — Heidi Roizen — but they need to work on their public message because the question persists.

Amelio has definitely given the impression that he's working hard to solve the problems inside Apple. He must put developer relations second only to profitability. Apple's future is hanging on it. □

THE SECOND DECADE HENRY NORR

Web page speaks volumes on Apple's Internet plans



Hoping to get a better handle on Apple's cyber strategy? Where better to look than a company Web page called "Apple and the Internet" (http://www.apple.com/documents/applenet.html), which addresses precisely that issue.

Just one problem: As of last week, the page had not been modified for more than five months — since Sept. 29, 1995. Even then, the update wasn't thorough: It includes, for example, pointers to events "coming in July 1995."

Revolutionary times

Perhaps it's unfair to pick on Apple over one Web page. And certainly the company does have several promising Internet-related initiatives under way: Cyberdog, Pippin (once a mere game machine but now touted as a low-cost Internet terminal) and the newly updated Web-server line.

Still, that stale page reveals a troubling truth: Apple has not yet fully absorbed the Internet's revolutionary implications. No one foresaw the magnitude of this phenomenon, but over the past year other major industry players have been busily reinventing themselves in light of it — reorganizing management, reallocating resources, reformulating product plans, making acquisitions to fill critical gaps.

We've seen some signs of a similar reevaluation from Apple, but mostly in relation to noncore products (eWorld and Pippin). If the company has rethought the products its fate depends on — the Mac OS, the Mac hardware line and even the Newton — in light of the Internet explosion, it has not yet managed to communicate its conclusions. Microsoft Corp. summoned journalists to report on its plan to integrate Web access with the Windows 95 desktop; Apple has scarcely bothered to let anyone know about the release of a Cyberdog beta. Last week Microsoft announced plans to build parental controls into its software; Apple, which has more at stake in the home and school markets, has played no public role in this closely watched discussion.

Small steps

For starters, how about some small gestures to show Apple gets it: Why not bundle the Apple Internet Connection Kit on all Macs, at least until Cyberdog graduates from obedience school? (As Apple's Web-server story shows, a little creative bundling sometimes goes a long way.) How about including one of the third-party parental-control utilities on all Performas? Why not offer some of its low-end systems preconfigured and marketed as Internet stations or telecommuter terminals? And how about a Newton NetPad, complete with wireless modem, TCP/IP stack (once promised for January 1996 but currently missing in action) and AllPen Software Inc.'s Newton Web browser?

Obviously, Apple has had its hands full recently, and CEO Gilbert Amelio has been the boss only a month. But developing and communicating a coherent Internet strategy is not something that can be put off until after the company has solved its problems; in my view it's the key to solving them. □

Henry Norr, editor emeritus of MacWEEK, welcomes feedback in the MacWEEK forums on CompuServe or eWorld or at henry_norr@macweek.com.

LETTERS

Apple's no fun

Apple using its name in the toy business sounds fine (02.19.96, Pages 3 and 4), but did it have to work with Toy Biz Inc.? As a father of a 6-year-old boy, I have bought toys from every major toy manufacturer out there, and from experience, Toy Biz is the bottom of the barrel.

The worst toy I've seen was a Vendom costume made by Toy Biz. It was of the shoddiest-quality manufacture, and even worse, completely dysfunctional in design. One wonders if the toy was ever tried on a child during development. They know well that no matter how crummy a toy is, there will be a whining child pestering his parent to buy it.

And this is the company with which Apple, winner of quality awards from J.D. Power, has chosen to make toys. Not fun.

Kevin Garrett, publisher
Macintosh Software Update Report
Woodland Hills, Calif.

Can't be serious

Is Don Crabb serious when he says that "Copland should dominate the thinking of the computer industry" (02.19.96, Page 19)? Unless it runs on Intel processors it will lose the mind-share battle with the Internet, Microsoft Corp. and IBM Corp. This view should be a no-brainer for anyone who writes about the computer industry.

J.P. Terry
Metuchen, N.J.

Crabb nails it

Don Crabb finally hit the mark in the Mac Manager (02.12.96, Page 23).

Among all the proposed business plans, wish lists and other good advice for Apple these days, there is one thing that has been missing so far: Apple must change the way it does its public relations. After all, who's the messenger of all this bad news? In the crowd of newspaper journalists, industry watchers and business analysts, I have seldom seen so few people making a fair assessment of the situation Apple is in. And because most people tend to write and rewrite what other people already have said or written — in the process adding just a little more hype to attract readers — the result is the press has portrayed Apple's financial situation as out of control when in reality it isn't.

A company with an annual revenue of $11 billion should be able to get its message across.

Hans E. Hazelhorst
Maarssen, Netherlands

Questions of quality

In "Digital cameras focus on two market niches" (02.12.96, Page 12), your lead paragraph in the story about digital cameras says: "Two more contestants are entering the crowded digital camera race, each targeting a specific area. Dicomed Inc. is angling for photo professionals who need high-quality images, while The Associated Press is focusing on photojournalists."

Does this mean that photojournalists for publications such as U.S. News & World Report don't make high-quality images? Or does it mean we and other publishers don't need or use high-quality images in our publications?

W. Keith McManus, photo editor
U.S. News & World Report
Washington, D.C.

Blitz Wintel

The world seems to be filled with armchair quarterbacks spouting their thoughts on what Apple must do to turn the company around. Me too. Me too.

Assuming Apple still wants to increase its share of the home computer market, this is my suggestion: a CD blitz.

When browsing in stores, I go green with envy seeing the many cheap CD 10-packs available for Wintel users. I wish stuff like that was available for the Mac. (Oh, I know there are three or four CD 10-packs available for the Mac; I even bought one myself. But they seem pretty shabby compared with the wide variety of Wintel 10-packs.)

Surely there must be lots of good discontinued Mac CDs out there — from CD publishers who were unable to successfully compete in the CD-ROM marketplace. At Price Club I have seen boxes full of discontinued Mac CDs selling for $10 each.

Apple should thoroughly search the world of discontinued Mac CDs and buy the rights to all the good ones it can find, particularly those that were made only in Mac versions. Then it should market them in at least 10 different CD 10-packs, selling each pack for a fantastic retail price of $20. Throw in special CDs with Apple goodies (like a HyperCard CD).

Bruce Long
Tempe, Ariz.

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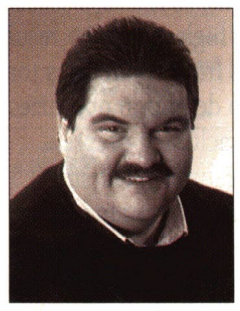
THE MAC MANAGER DON CRABB

Apple needs to improve its efficiency, but quietly

Let's take a giant leap of faith. Let's assume that Gilbert Amelio's Apple will figure out how to fix its biggest problems and then actually do the fixes.

Apple will discover how to re-energize its developers, how to market it products, how to create compelling ads and run them frequently, how to reduce its model proliferation, how to get its best technologies to market faster, and how to keep innovating.



Let's assume all — or the lion's share — of these major feats will get done. And done right.

We'll be sitting pretty then, huh? Not necessarily.

Quietly effective

Back when I was a college kid at Ohio State, the mayor of Columbus, Tom Moody, ran his campaigns on the premise that he was a solid but silent manager. He called his mayoral style "quietly effective." And regardless of your politics, you had to admire the guy. He was a crackerjack mayor who got stuff done, not by blowing his own horn, but by leading people unobtrusively, tending to the little things that made Columbus a special city.

As a company, Apple has never been quietly effective. It has variously been bombastically effective, noisily ineffective and raucously vacillating, but never quietly effective.

As a result, Apple has let lots of important small stuff slip through the cracks because either it couldn't figure out how to incorporate it into its big picture, since it was ignorant of its importance, or the overworked Apple staffer who should have handled it was buried in too many other projects.

Amelio's Apple needs a point person for the small stuff — the subtle stuff — the unglamorous stuff — to make Apple quietly effective like Mayor Moody.

True power

Give this person real authority — something like senior vice president for customer satisfaction. Let this person build a small organization that would *oversee* all aspects of customer satisfaction: product quality, service, support and sales. But most importantly, give this person the power to review and approve all Apple products and services to make sure that the little things are in place, lest the customers become guinea pigs.

As a start, here's a short list of the little things for the new vice president:

- Create and freely distribute a truly intelligent Installer. Make sure it's used in all Apple and Claris Corp. products. This intelligent Installer should look the same in all contexts and give users as much or as little control as they need. And it should be smart enough to get rid of old versions of the things it's installing and then give you a log explaining what it has done.
- Publish a comprehensive but nontechnical exegesis on all past, current and upcoming system widgets — and their interrelationships.
- Bundle every Mac with a CD-ROM containing copious how-to and why content in the form of Apple Guide files and Adobe Acrobat books about the Mac and the OS that can be word-searched and that include live URL (uniform resource locator) links to Apple's and others' Web sites. □

Don Crabb welcomes comments at his Internet address decc@cs.uchicago.edu. You can also check out his home page at http://cs-www.uchicago.edu/~decc/.

"Marcel is a lot like his Web page — looks good but no content."

Comments? Ideas? Contact Eli at elitoons@aol.com

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Suitcase 3.0 packs away some of your font troubles

By Loftus E. Becker Jr.

Font manager is a rock-solid performer, but error-detection features could be more robust.

Impatient Suitcase users will welcome Symantec Corp.'s long-awaited revision of its popular font-management utility. Version 3.0 — the first major update to the program in nearly four years — packs a few features that make font management a little easier and provides support for new system features. But for many, the most important aspect of Suitcase is that it appears to be rock-solid on all the machines we tested, including a Power Macintosh 7500.

Until System 7, Suitcase was indispensable for power users, easing access to desk accessories, fonts, sounds and Fkeys. Desk accessory management is no longer an issue for System 7 users, so Symantec has repositioned Suitcase 3 as a font utility directed at desktop publishers and font mavens.

Sporting a new drag-and-drop interface, Suitcase 3 lets you link sets of fonts to specific applications and resolves font ID conflicts on the fly. The native Power Mac application, which has an estimated street price of $69.95, also supports QuickDraw GX fonts and AppleScript.

Suitcase's primary function is to let you easily open and close only the individual fonts or groups of fonts you want to use. It does this by storing fonts outside of the Fonts folder in the System folder, and opening them singly or in groups as you command. Support for sounds and Fkeys, although present, is now minimal and barely mentioned in the documentation.

You manage fonts in Suitcase by placing them in sets, which are collections of one or more fonts you want opened or closed at the same time. (Once a font is open, it remains open until you close it manually or restart the Mac.) You can similarly install sounds and Fkeys — in fact, any kind of resource — in files that Suitcase can open.

Complete set

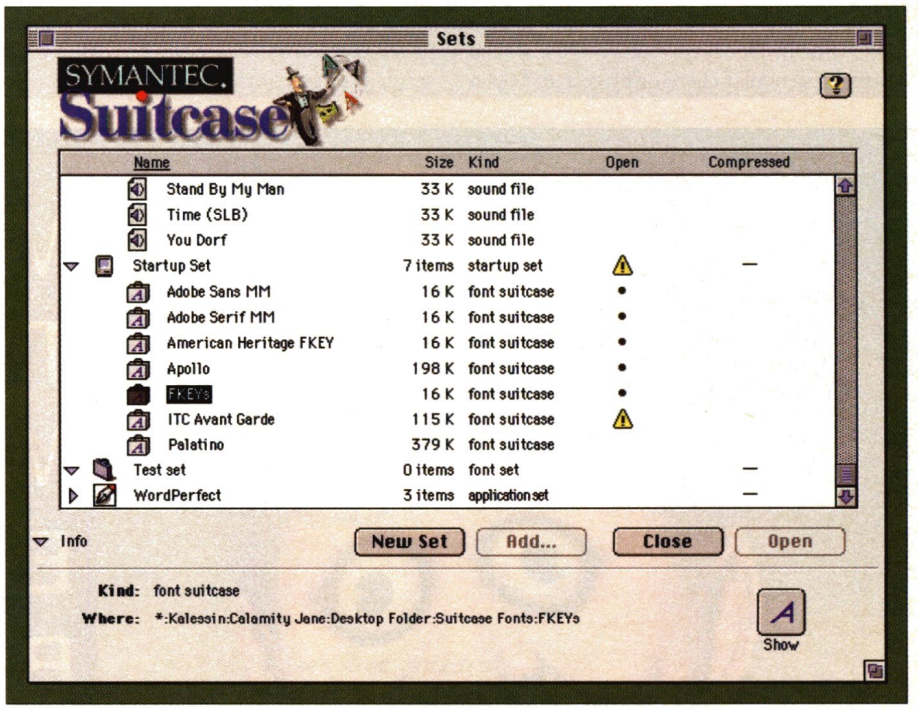
Operating the program is reasonably intuitive and quite easy; the hardest thing is deciding how to organize your fonts.

The main Suitcase window, now resembling the Finder's list views, is where you create and modify sets, as well as open and close sets or individual fonts. Almost any function in Suitcase can be performed in a variety of ways, such as from a menu, by clicking buttons, via drag-and-drop, or by writing AppleScripts.

Suitcase lets you create three kinds of sets. New to Version 3 are application sets. Fonts in an application set automatically open when that program is started. This is handy because some applications, such as eWorld and many dictionaries, require a specific font that you may find annoying or inconvenient in the font menus of other applications. Unfortunately, for safety reasons you have to close the fonts manually when you're done with the application; nevertheless, the feature can go far toward reducing font clutter.

The Startup Set is where you put fonts that you want to open when you turn on your Mac. Because System 7 does the same

See Suitcase, next page



The main window in Symantec's Suitcase 3 is where you create and modify sets and open and close sets or single fonts. Here a display warns of font conflicts in the ITC Avant Garde suitcase.

score card

Suitcase 3.0

Symantec Corp.
Estimated street price: $69.95*
Overall value ◆◆◆

Symantec Corp. has rewritten Suitcase 3 from the ground up and refocused the program as a font-management utility aimed at desktop publishers and others who rely on fonts. You can now link fonts to specific applications, which can go far toward reducing font clutter. Except for WYSIWYG Menus, which are still slow, Suitcase 3 performs solidly. Although it's not yet the complete font utility we'd like to see, Suitcase 3 makes opening and closing groups or individual fonts simple, and can ease or eliminate problems when moving documents from one machine to another. We miss a few of the features that were dropped in the rewrite, but all Suitcase 2.0 users should certainly upgrade.

Performance ◆◆◆
Features ◆◆
Ease of use ◆◆◆
Documentation/support ◆◆◆

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PowerBuilder for Mac: Almost worth the wait

By David B. Leaf

Powersoft's development tool lacks some features found in the Windows version.

It's been a long time coming, but PowerBuilder for Macintosh is finally here. This object-oriented, client-server development tool from Powersoft Corp. has been one of the Windows market leaders since 1991, but its Mac port has been delayed for years. Now that it's here, it looks as though Powersoft has delivered a robust tool, but it suffers from some performance problems and lacks features that the company didn't bring over from the Windows side.

PowerBuilder costs $3,295, and for this heap of cash you receive the development environment along with Powersoft's InfoMaker, a query tool; Infobase, a library of technical notes; and Watcom SQL, a database that allows stand-alone development when you are not connected to a database server.

The program includes native drivers for Oracle6 and Oracle7 and Sybase SQL Server 4 and 10 databases, along with an Open Database Connectivity driver. Additional vendor-specific middleware is required to connect to certain databases. For example, you need Oracle client software or SQL*Net for Macintosh to connect to an Oracle 6 or 7 database.

Compatibility

PowerBuilder was intended for client-server development from its inception, and

See PowerBuilder, Page 26

Suitcase

From previous page

thing for fonts in the Fonts folder, there's little reason to use this set unless you want to store fonts on something other than the start-up disk, take advantage of Suitcase's font-compression capability or close fonts in this group fairly often.

Other sets can be used for a variety of purposes. For instance, you can create a special set for a particular client or project and open it whenever you're doing that work. You can create sets solely for the purpose of organizing your fonts (grouping by type or alphabetically) even though you might never use all the fonts in one set at the same time.

You can have a virtually unlimited number of sets, but because the Mac OS is limited to 300 open files, you can open only about 250 font files with Suitcase (roughly twice the Fonts folder limit), although a single file can contain many fonts.

Some features from previous versions are now gone. The font displays are useful but there is no longer an indication of what font sizes are installed, or whether the fonts are bit-mapped or TrueType. Installed sounds and Fkeys can no longer be displayed.

Version 3 can now automatically resolve font ID conflicts on the fly, renumbering one of the fonts in RAM but making no changes to the copy on disk. Although it will note font name conflicts, it provides no facility for renaming one of the conflicting fonts. Version 2 in both cases gave you the opportunity to renumber (or rename) one of the fonts on disk. The new method is delightful for ID conflicts, but we wish the software retained the capability to deal with conflicting names. As it is, you'll need either technical knowledge or a specialized font program to do this.

Suitcase's error-detection capabilities could go a little further. If you try to open a file containing a font that's already open, Suitcase will refuse and notify you of the conflict via an error message. However, it won't identify the font — a real annoyance if you have hundreds of fonts. Other error messages are similarly vague, telling you that some files can't be opened or compressed, but not which ones.

Suitcase will not check for conflicts in other resources, such as Fkeys or sounds, that may be in opened files. Nor will it check for font damage. It won't warn you if the printer font is missing, or if a font is present in name only.

Performance

In our tests, Suitcase performed its major functions efficiently. Native code on a Power Mac no doubt speeds some operations, but the program has always been fast (except when compressing fonts.)

The one exception is WYSIWYG Menus, which are still slow and don't work with several applications, including Microsoft Word 6. Also, Symantec has removed the capability to merge styled fonts (this was previously handled in the add-on program Font Harmony). This means, for instance, that you'll see B Times Bold and other variants in the Font menu instead of just a single entry for Times. The WYSIWYG Menus feature in Now Software Inc.'s Now Utilities and Adobe Systems Inc.'s Type Reunion are both superior, but Type Reunion has troubles with Suitcase.

Overall, however, Symantec's team of programmers has done an outstanding job with the rewrite. We tested Suitcase on three machines — a Power Mac 7500, Centris 610 and PowerBook Duo 280C — and were unable to find a crash for which the application was responsible. (However, you can usually force problems by wantonly closing fonts that are in use by some application.)

Conclusions

Suitcase 3 is not yet the complete font utility we'd like to see. In the future, we hope it can deal with naming as well as numbering conflicts, diagnose and even fix damaged fonts, and warn about missing or misplaced PostScript fonts.

The product works well for users with too many fonts to keep open all at once; who regularly move documents among machines; and network managers, who may find its AppleScript capacity useful for maintaining consistent setups for dozens or hundreds of users.

If you spend time managing your font files, you'll save time with Suitcase. If you've been making do with Version 2, you should definitely upgrade.

Symantec Corp. of Cupertino, Calif., is at (541) 334-6054 or (800) 441-7234; fax (541) 334-7474; http://www.symantec.com. □

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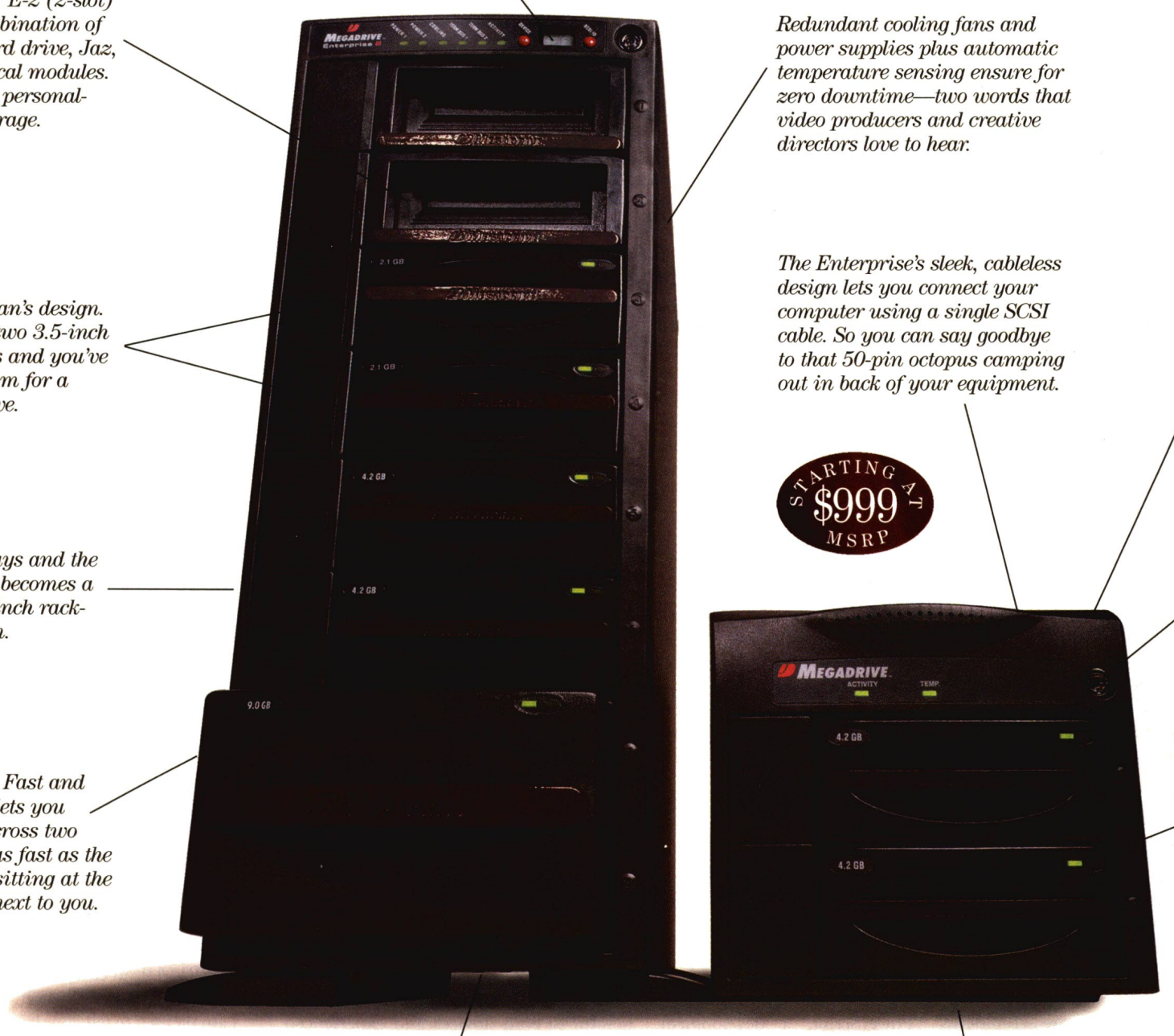

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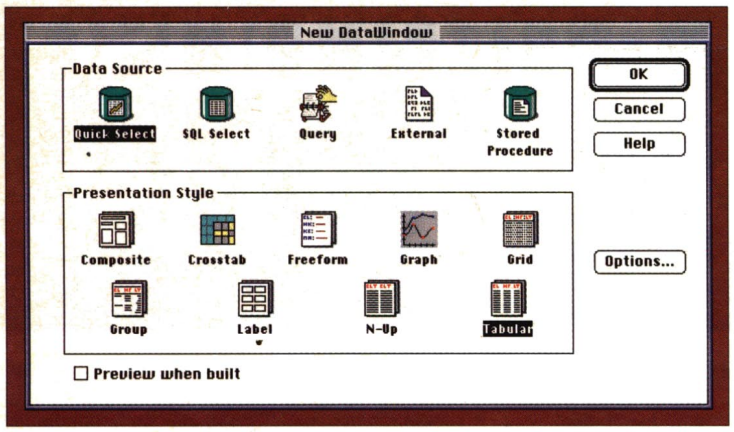

You manipulate data in Powersoft's PowerBuilder using DataWindows, which you create by choosing a data source followed by a display format. You can customize a DataWindow dynamically at runtime.

PowerBuilder

From Page 23

this is obvious after looking at its mature, intuitive and powerful object-oriented programming environment. For better or worse, Powersoft has done an excellent job of replicating the Windows development experience on the Mac. Most of the capabilities of the latest Windows version are present in the Mac version, with a few notable exceptions: Missing here is support for Dynamic Data Exchange, OLE and hooks to third-party source control systems.

The major fault here is the lack of OLE (or even OpenDoc) support, which limits the extent of interapplication communication. An additional drawback is the inability to save a window or user object that contains an unsupported OLE control element. This may mean maintaining separate code libraries for multiplatform applications that use platform-specific controls. There are a few minor compatibility glitches (such as the same command being indicated for both Close and Preview actions in the Window module), but nothing of major importance.

Because a PowerBuilder executable contains platform-specific information, libraries must be regenerated and compiled on the destination platform. This means shelling out bucks for at least one development copy per platform, which is a real disappointment, especially when compared with products such as Blyth Software Inc.'s Omnis7, which requires no action (or additional cost) whatsoever for execution on different platforms. PowerBuilder offsets this disadvantage somewhat by including a deployment kit that enables you to freely distribute executables.

Database access

PowerBuilder's approach to database interaction is through transaction and DataWindow objects. Transaction objects define the connection parameters to a specific database, while DataWindow objects are used to manage and manipulate data.

A DataWindow object retrieves data from a database — either from tables, a stored query, a SQL statement, stored procedures or an external data source. The data can then be displayed in various formats, such as tabular (columns), grid (spreadsheet), graph, label, composite (container for multiple reports) or free-form. This makes data manipulation easy and is the real power in PowerBuilder. With just a few mouse clicks, you can create a fairly sophisticated data-entry window. You can then customize and refine to your heart's content to develop complex and flexible applications.

In keeping with its object-oriented approach, PowerBuilder lets you modify characteristics dynamically at runtime — such as altering the Where clause, changing the data source or controlling the appearance settings — offering the developer a great deal of control and flexibility.

Code runner

PowerBuilder also comes with PowerScript, a development language similar in some ways to C, that is easy to learn for any experienced programmer and further aids in the creation of complex applications. Scripts can be associated with an event (such as a double-click) for virtually any object, including windows, buttons, list boxes, text labels or user-defined structures.

The program's application debugger is also very useful, allowing you to set break points, watch variables and execute scripts in a stepwise manner to aid in the resolution of logic and referential bugs.

PowerBuilder's strong object-oriented features can greatly increase programming productivity. The concept of class libraries is fully implemented, allowing one object to inherit properties from another. The descendent object references the inherited features rather than copying them, making global changes much easier and more efficient. This also promotes code reuse and sharing.

Although the Windows version of PowerBuilder allows source-code management through various third-party products, the Mac version only supports the Apple Source Server.

Performance

PowerBuilder requires System 7.5.1 or higher, a 68030 processor (68040 recommended), a minimum of 15 Mbytes of disk space, and a recommended 24 Mbytes of RAM. You'll also need the Apple Shared Library Manager 2.0 to run PowerBuilder or use the deployment kit. Connectix Corp.'s RAM Doubler is included in the package to alleviate the heavy RAM requirement.

PowerBuilder is currently available only in a 680x0 version: It's disappointing, to say the least, that Powersoft would release a new product at this late date that is not Power Mac native. (The company said that a native version is due later this year).

Application performance is comparable to other Mac development tools, the determining factors being the database driver and communication transport to the database. PowerBuilder's performance is adequate in terms of code execution, window and object drawing, and client data manipulation. It doesn't blow your hair back but is good enough for most applications.

One annoying deficiency is the slow speed of database manipulation in the development environment: We found ourselves drumming our fingers each time the local Watcom database started running. Performance is better once the application and database have been loaded, but actions such as opening DataWindow objects, maintaining tables and running the sample applications are still sluggish.

Documentation and support

PowerBuilder's documentation is quite complete, with helpful guidelines for cross-platform development and deployment. On-line help is also outstanding, with a complete command reference with many examples. You can copy examples into an actual object, which is extremely helpful to both novices and experienced programmers.

Phone support is available through several programs ranging from pay-as-you-go to annual custom support. When we contacted them, the staff were experienced and professional. Technical support is also available through fax, on-line services and the Powersoft Infobase CD that is published several times a year.

Conclusions

PowerBuilder for Macintosh is a strong contender in the field of client-server development tools for the Mac. It's a robust, well-planned and complete development environment that has already proved itself in no uncertain terms in the Windows market. However, though Powersoft took a long time to ensure that PowerBuilder for Macintosh was functionally equivalent to the versions on other platforms, it still suffers from being a first-generation Mac product: Improvements in speed and OLE support would go a long way toward converting existing Mac developers.

If you haven't placed your bets on a client-server development tool, PowerBuilder is worth a look. If you're already happy using a tool such as ACI US Inc.'s 4th Dimension or Blyth's Omnis7, there's probably not enough of a difference among products to warrant a change. PowerBuilder for Macintosh will appeal primarily to companies that are already using PowerBuilder for their Windows users and want to extend client-server access to their Mac users without learning a new development tool.

Powersoft Corp. of Concord, Mass, is at (508) 287-1500 or (800) 395-3525; fax (508) 369-4992; http://www.powersoft.com. □

score card

PowerBuilder for Macintosh

Powersoft Corp.
List price: $3,295
Overall value ♦♦♦

After an almost three-year delay, Powersoft has finally made good on its promise to bring its renowned client-server application development system to the Mac. PowerBuilder is a robust development tool that can be used to build complex, mission-critical client-server applications. With its high degree of object orientation and strong, flexible approach to data manipulation, PowerBuilder offers a great deal of flexibility and power to application developers. Its strong presence in the Windows market makes it an extremely attractive tool for cross-platform development and deployment at larger organizations. PowerBuilder suffers from slow database access; large memory requirements; and some missing features, which are in the Windows version (such as OLE support), but on the whole this is a good first Mac release.

Performance ♦♦
Features ♦♦♦
Ease of use ♦♦♦♦
Documentation/support ♦♦♦♦

reviews FORUM

Business matters

Thank you for your review of Big Business Server (see 01.22.96, Page 67). We were pleased with your candid discussion of the product's feature set, documentation and support, each receiving four diamonds. We were thrilled to receive five diamonds for Big Business' ease of use. The discussion of speed, however, may have confused some readers, since there were no comparisons made to any other multi-user or server-based products. Big Business Server often delivers superior performance at significantly lower prices when compared with our direct multi-user competitors. Additional confusion may have been created by the closing reference to Intuit Inc.'s QuickBooks Pro 4.0, an entry-level bookkeeping product that is not multi-user.

I am pleased to tell you that Big Business Server 2.0, which was announced in February, directly addresses the few concerns in your otherwise very positive review.

Ted Helvey
President
Big Software Inc.
Los Altos, Calif.

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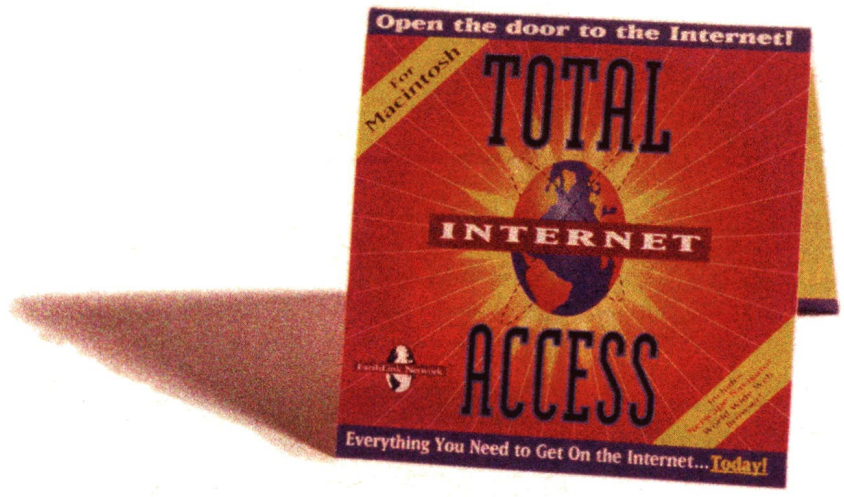

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COMPARISON

Mac tax packages ease filing — to an extent

By Tom Geller

MacInTax, TaxCut best for simple filings; more-complex jobs tax the applications.

If death and taxes are the two ancient certainties of life, then the fact that every year will bring a new crop of tax software is their modern counterpart. The field of consumer tax software continues to grow, but two established products dominate: Intuit Inc.'s $39.95 MacInTax and Block Financial Corp.'s $29.95 Kiplinger TaxCut. We looked at the 1995 basic versions of both and found them to be decent. Each application has its own set of advantages, and neither particularly distinguishes itself as better than the other.

Bewildering choices

The advantage of tax programs is that they use "expert systems" to guide you through myriad options. By asking directed questions, both MacInTax and Kiplinger TaxCut determine which forms to file and fill them out for maximum tax savings and — one hopes — in compliance with the law.

Sadly, there is no expert system to lead you through the range of configurations available for each program.

MacInTax is the worse offender: Besides the basic version, there are a number of other versions aimed at businesses, proprietorships and partnerships, and professional tax preparers. If you have a salaried job, the basic MacInTax will do just fine; if not, you'll have to do some research to determine which version includes all the information you'll need.

Kiplinger TaxCut's product line is smaller but still idiosyncratic, with several products available only on the Windows side. To add insult to injury, the Macintosh version costs much more than the Windows version, which commonly retails for about $20. (Both products, in fact, treat the Mac as a second-class citizen, with some features available only in the Windows versions.)

Simplicity, style and speed

Once you've purchased the appropriate version of the software, the applications are remarkably similar.

Both offer two main methods of doing your taxes: via an expert system of questions and answers, or by filling out the many forms directly.

Both contain ready-to-file tax forms built into the program (MacInTax has 197 forms, Kiplinger TaxCut has 106). Both include relevant Internal Revenue Service publications, although we found the pickings to be uneven in this regard. Both elucidate difficult tax terms via a hyperlinked glossary, and both feature expert tax tips. What mostly sets them apart from each other are simplicity, style and speed, and the packages run a close race in all three facets.

In terms of simplicity, MacInTax's EasyStep expert system outshines Kiplinger TaxCut's Q&A. EasyStep's questions take you on a clear linear path through your financial history, leading ultimately to a printed and filed return. But this single-mindedness sometimes leads you down a convoluted side road with no easy exit. For this year's MacInTax, Intuit has added a Navigator feature to help you battle your way back to relevance, but it's woefully inadequate. We often had to retrace our steps and delete extraneous forms to gain control.

Kiplinger TaxCut's Navigator is much better, giving an overview of interview subjects and making it easy to jump around at will.

What it lacks, however, is a smooth transition from one tax subject to the next, and we often missed guidance on whether a subject applied to us. (Where Kiplinger TaxCut did advise, it was written in a more engaging style than the help in MacInTax — an important consideration for the long, boring tax-preparation process.)

The two programs' interfaces are remarkably similar, but each has its advantages. MacInTax's main problem is that the Forms section of the program — through which you can enter data directly into IRS forms — seems to have been developed apart from the EasyStep system, and switching between the two modes is clunky. To its credit, however, MacInTax's help facilities are much better integrated into the main program than are Kiplinger TaxCut's, which require you to launch a separate application for the meatier advice. (In addition, MacInTax contains native Power Mac code for speedier performance.)

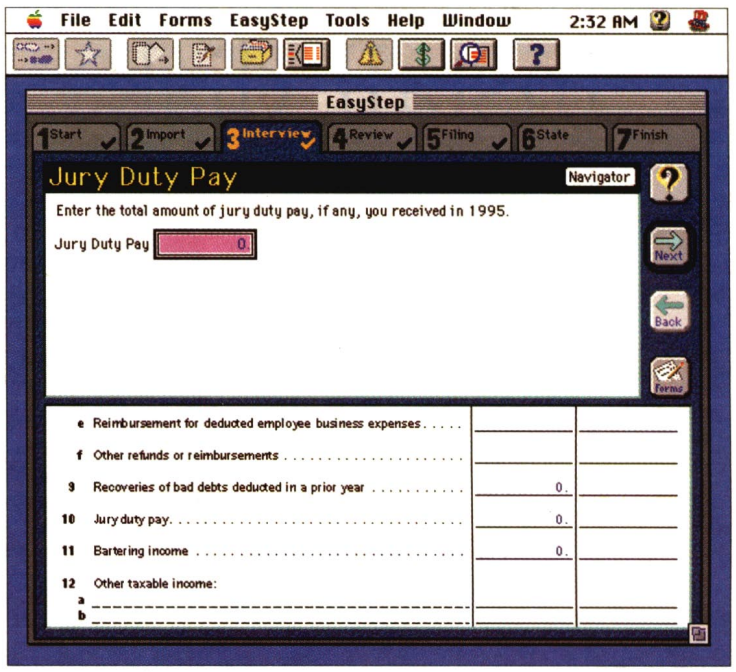
Are they complete?

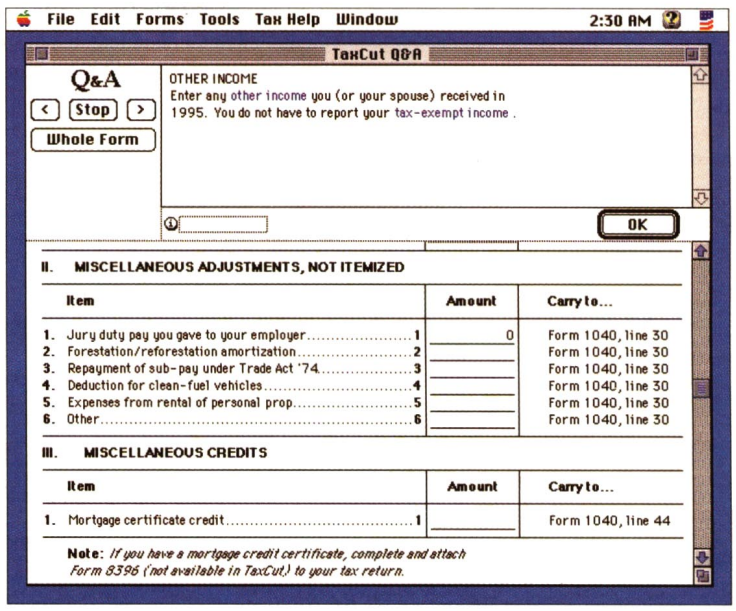
In the end, what matters is whether the software helps you to file an accurate and compliant return. With a virtual sheaf of government forms in their libraries, both programs are certainly well-equipped to do so and work well for most simple tax situations.

If your situation is more complex, though, watch out. We filled out a test return for someone with a salaried job for the first half of the year and income in the latter half from two businesses: a sole proprietorship and a partnership.

Both programs easily calculated taxes for the salary (W-2) and managed the sole proprietorship (1099-MISC, Schedule C) in fits and starts. But when it came to the partnership (1065, 6198), neither program would attempt to step us through the process, sending us instead to the forms. (Intuit's MacInTax for Business series, which we didn't test, allegedly makes such returns easier.)

See Tax, Page 30

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Q&A
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Whole Form
OTHER INCOME
Enter any other income you (or your spouse) received in 1995. You do not have to report your tax-exempt income.
OK
II. MISCELLANEOUS ADJUSTMENTS, NOT ITEMIZED
Item | Amount | Carry to...
1. Jury duty pay you gave to your employer 1 | 0 | Form 1040, line 30
2. Forestation/reforestation amortization 2 | Form 1040, line 30
3. Repayment of sub-pay under Trade Act '74 3 | Form 1040, line 30
4. Deduction for clean-fuel vehicles 4 | Form 1040, line 30
5. Expenses from rental of personal prop 5 | Form 1040, line 30
6. Other 6 | Form 1040, line 30
III. MISCELLANEOUS CREDITS
Item | Amount | Carry to...
1. Mortgage certificate credit 1 | Form 1040, line 44
Note: If you have a mortgage credit certificate, complete and attach Form 8396 (not available in TaxCut) to your tax return.

Both Intuit's MacInTax (top) and Block Financial's Kiplinger TaxCut (bottom) walk you through the process of filing a federal tax return via a guided interview. MacInTax's interview asks questions in a more detailed fashion than does Kiplinger TaxCut's, so you rarely need to doctor information in the tax forms themselves when using MacInTax.

score card

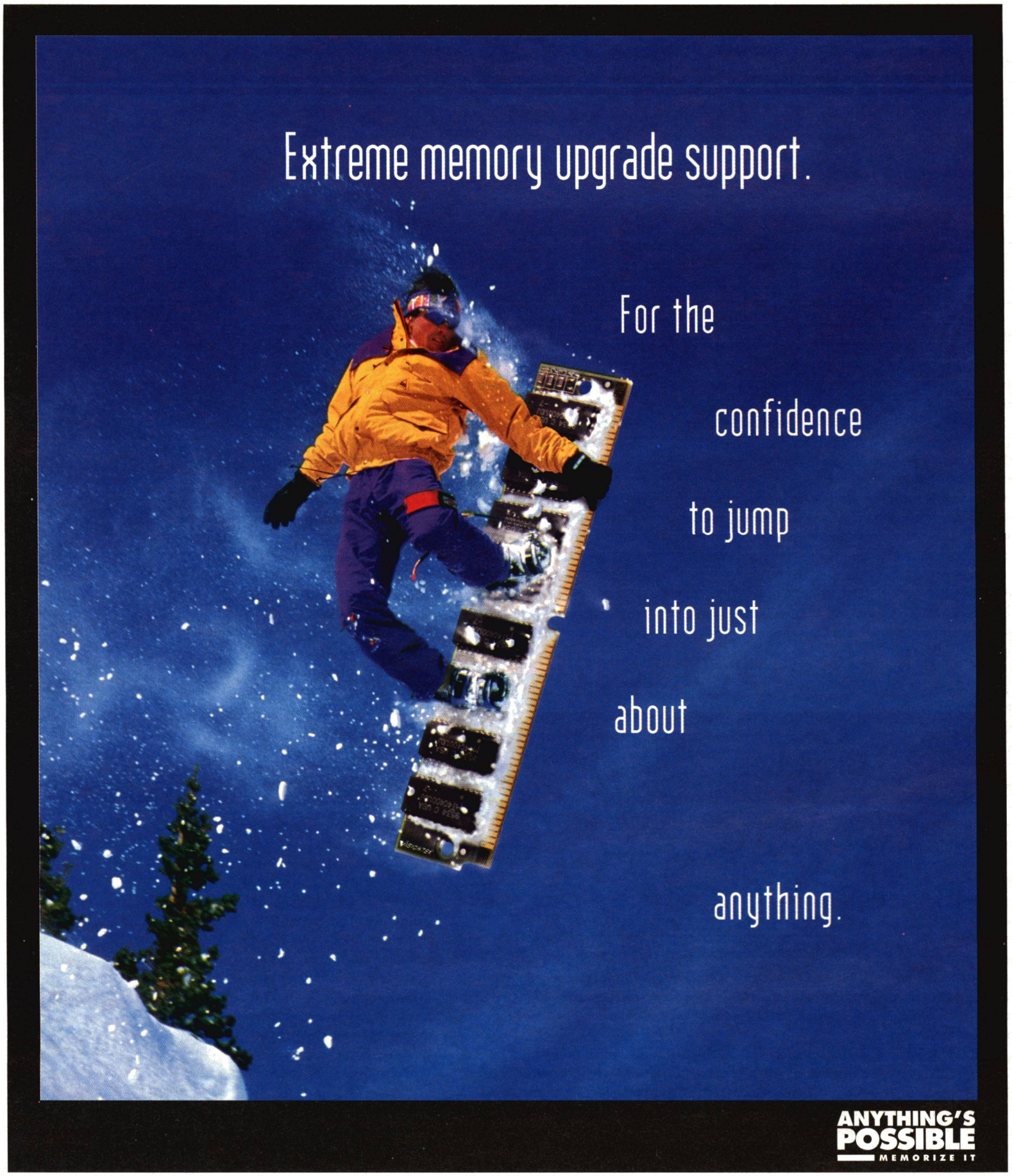
Macintosh tax software

As any U.S. taxpayer knows, filling out a federal tax return is an inhumanely complex task. To help ease the burden, two Mac software packages offer expert systems that lead you through the process, dispense tax tips and complete the return.

- **Kiplinger TaxCut,** from Block Financial Corp., features content over form, with intelligent information from the editors of the Kiplinger family of financial magazines. The interview process is free-form, making it easy to jump from one form to another, but hard to complete a tax return in a linear fashion.
- **MacInTax,** from Intuit Inc., features a capable interview process called EasyStep that is clear, if occasionally wandering. The set of tax forms included is the most complete we've found, although accessing a given form — or a specific spot in the interview process — is often inconvenient.

	Kiplinger TaxCut '95	MacInTax '95
Overall value	◆◆◆	◆◆◆
List price	$29.95*	$39.95
Performance	◆◆◆	◆◆◆
Features	◆◆◆	◆◆◆◆
Ease of use	◆◆◆	◆◆◆
Documentation/support	◆◆◆◆	◆◆◆◆

**When purchased directly from Block Financial Corp.; street price is $5 to $10 higher.*



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Tax

From Page 28

Both programs come with excellent user guides, although they're practically superfluous given the wealth of on-line help. Additional information is available via on-line services and fax-back. Neither Intuit nor Block had particularly stellar phone support. There are no toll-free support numbers for either company, and when we called, the service tended to be slow.

Conclusions

Both Block's Kiplinger TaxCut and Intuit's MacInTax do a fine job of helping you get through the daunting task of preparing federal tax returns. Each has its advantages: MacInTax has more forms and a better interview, while Kiplinger TaxCut has wittier writing and a clearer overview. In our subjective tests, MacInTax finally prevailed, although only arguably so. Neither program is a panacea for tax-time tsoris, and both require a careful hand. While they sport good expert systems, neither is going to save you from headaches if your tax situation is complicated.

Block Financial Corp. of Campbell, Calif., can be reached at (408) 374-5504; fax (408) 374-0560; http://www.conductor.com.

Intuit Inc. of Mountain View, Calif., is at (415) 944-6000 or (800) 624-8742; fax (520) 295-3014; http://www.intuit.com. □

Quicken 6's on-line financial services stumble

Overall value ◆◆◆

After more than a year, Intuit Inc. has revisited the leading Macintosh program for personal and small business finance and given it a new suit of clothes. Unfortunately, the most important piece of the new wardrobe — on-line financial services — needs some major alterations.

The $59.95 Quicken Deluxe 6.0 for Macintosh began shipping in October, but the on-line banking features were not ready yet. Intuit recently added these features to Version 6, which is also Power Mac native and includes several utilities that offer home inventory tips and investment advice.

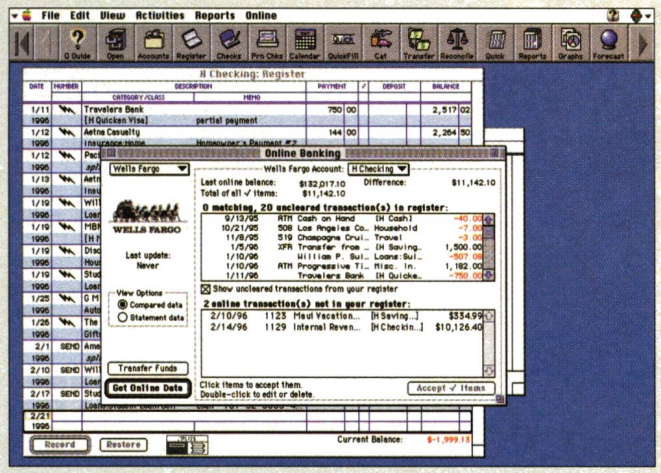
On-line banking

On-line banking gives users the kind of control over bank accounts that Quicken 5.0's IntelliCharge feature gave them over credit cards. That is, with on-line banking, you can download all your banking transactions directly into Quicken registers, conduct transfers via modem and integrate these updates with on-line bill payment (a function that Intuit provided in Version 5 as an add-on feature from CheckFree Corp.).

The good news is that, overall, on-line banking works as advertised, is a tremendous timesaver, and delivers more accurate and timely financial data.

The bad news is that on-line bill payment — although fully functional in Quicken 5 for Windows — was not implemented in the Mac version. Instead, Intuit has kept the CheckFree electronic bill-payment facility from Quicken 5, and announced that on-line bill payment will not be implemented until a future version.

At first glance, this might not seem like a serious problem; after all, CheckFree's service is virtually identical to the on-line bill-payment service in the Windows version. However, there are several gotchas. First, having two separate services (on-line banking and CheckFree) may cost you double the monthly service fees. Second, you have two distinct entities to deal with when a payment problem arises. Both of these can be seen as minor, but they lead to strike three: As a result of the differences in on-line support between the Windows and Mac versions of Quicken, some banks — five, at press time, including majors such as Citibank, Chase Manhattan and CoreStates — have decided not to support the Mac version.



If the on-line bill-payment feature in Intuit's Quicken 6 were fully implemented, this would have been a major step forward; as it is, it's a half step back for Mac Quicken users.

This bad situation is made worse by Intuit's advertising, which confuses the issue by listing many of these banks as offering on-line banking for the Mac. Those users interested in on-line banking would be well-served to call their banks and confirm that they support Quicken for Mac before upgrading.

Intuit has recently announced 15 new on-line banking partners, but their plans for Mac support have yet to be announced.

The bug-stomp boogie

Quicken 6 also suffers from a number of minor bugs. Some users find that the new version of the BillMinder facility conflicts with Apple's At Ease or displays wildly inaccurate reports of overdue payments. Others report an intermittent inability to save converted Quicken 5 files using the Save As command (a bug apparently related to corrupted Security Lists). Others have complained of problems with transactions or security prices being lost when they start a new financial year. Intuit is aware of these problems and is working on fixes for them.

None of these bugs is so common that large numbers of users are being affected, but that's cold comfort to those who are. (Incidentally, the most common solution suggested is to reindex your data file by hitting Command-Option-B.)

The deluxe treatment

Quicken Deluxe also comes with several useful value-added utilities, including a home inventory feature, customized advice from financial professionals, the capability to search thousands of mutual funds by characteristics, and hints and shortcuts from the Quicken development team.

Quicken 6's documentation is on the CD-ROM in the form of Apple DocViewer documents (a printed copy is $15). Reading the manual is cumbersome, since you need to have the CD-ROM loaded.

On the other hand, Quicken 6 makes excellent use of Apple Guide to walk users through the sometimes daunting options available (especially for loan and investment tracking). Technical support was helpful but a little slow in coming; Intuit is clearly experiencing strong demand for support personnel with this latest release.

Conclusions

Quicken 6's on-line financial services feature has the potential to be a wonderful timesaver in the tradition of IntelliCharge, but only if fully implemented.

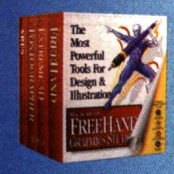
The lack of on-line bill payment (and some banks' corresponding decision to not support the Mac version) is a step in the wrong direction, and at press time Intuit was reluctant to commit to a real plan to upgrade the Mac version. We urge the company to not wait for the next major revision.

While current users may find little reason to upgrade to Quicken 6 (beyond native Power Mac code), new users will still find that Quicken is the best personal finance package for the Mac.

Current users of Quicken Deluxe 6 for Macintosh can download the free on-line banking upgrade from Intuit's Web site.

Intuit Inc. of Mountain View, Calif., is at (415) 944-6000 or (800) 624-8742; fax (520) 295-3014; http://www.intuit.com.

— By Jeffrey Sullivan



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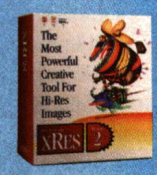

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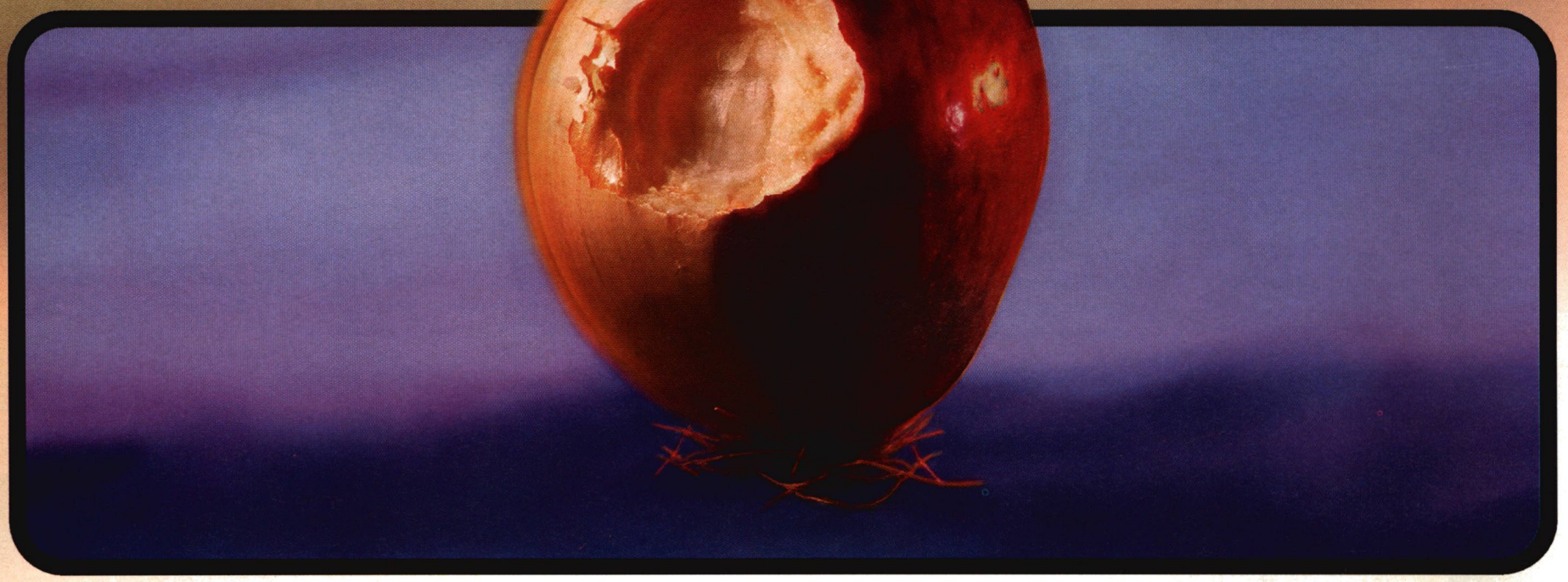

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DIGITAL VIDEO

Low-cost digital video tools let users flex creative muscle

By Connie Guglielmo

Like their counterparts in the independent-film world, digital video producers have had to learn to be creative on minuscule budgets. And considering that renting high-end editing suites can run to several thousand dollars per day, these Macintosh video mavericks have found their own way to level the playing field. These producers are creating professional-quality video using a slew of Mac-based off-the-shelf video-editing and effects software, which offer comparable functionality that often exceeds what is offered by dedicated video-production systems.

"The Mac and programs like [Adobe] Premiere don't solve all your problems," said Timothy Cataldo, president of fiasCo. Films of New York. "They don't make you a better filmmaker. What they do is give people like me the flexibility to pursue my ideas and explore new concepts at less than $250 per hour, which is what an editing suite might cost me."

Not counting the specialized software that developers such as Avid Technology Inc. of Tewksbury, Mass., and Data Translation Inc. of Marlborough, Mass., bundle with their video-editing hardware systems, Mac users have a wide array of applications at their disposal for nonlinear editing, compositing and special effects.

"It gives me the quality and power to finally compete with the bigger shops, which own high-end workstations."

–Jeff Foster, Foster Digital Imaging Inc.

To critics who say these programs may not offer the full range of functionality needed to handle all the demands of production, Cataldo describes the creation of his full-length documentary about Indian motorcycles, the first American-made motorcycles. The documentary, "Indian Summer: A History of the Original American Motorcycle," was edited entirely using Premiere from Adobe Systems Inc. of Mountain View, Calif., and output to video in high-quality Betacam SP format. (The piece has just been picked up for distribution.)

Cataldo chose Premiere because of its easy-to-use interface and the many intricate and precise editing features, such as complex transitions and compositing (or merging) of video clips.

"The interface is gorgeous," he said. "I'm visually oriented, and the Construction window in Premiere gives me a graphics representation of all the clips, transitions, titling and layers in my movie."

fiasCo. also produces and directs news specials for broadcast companies in Hamburg and Munich, Germany, and Milan, Italy, using the Mac and Premiere, and provides production services to advertising clients including MTV, Georgio Armani and the U.S. Postal Service.

"I never intended to be a digital video guru, which is what I've become," Cataldo said. "It's just that Premiere is a fantastic tool for small independent studios like mine. If we've got a huge commercial project with a big budget, then we can budget in all this expensive studio on-line time. But when we're doing small things, that's where Premiere comes in."

Creating sidelines

Without Avid's VideoShop 3.0 editing software, Jim Belderes said he would not have been able to create the instructional CD-ROMs he now plans to sell as a sideline to his business. Belderes is owner of Digital Design in Carlsbad, Calif., a digital lab devoted to photo restoration.

Prints and 35mm negatives are scanned, retouched or restored with Adobe Photoshop and then output to a film recorder so that new negatives and prints can be created. Because his business is still considered unique in the film-processing market, Belderes said he decided to create a CD-ROM presentation showing how others could use the Mac and Photoshop to restore their own photographs.

Using CameraMan — a $70 screen-recording program from Vancouver-based Motion Works Group — Belderes recorded the restoration techniques and stored the sequences, captured at 4 frames per second in a 4-by-5-inch window, as QuickTime movies. (The movies ranged in size from 5 to 40 Mbytes.) The movies were then imported into Avid's VideoShop and edited.

Belderes used VideoShop's built-in audio tools to add narration. The final movie was turned into an interactive CD-ROM presentation using SuperCard from Allegiant Technologies Inc. of San Diego. "VideoShop was perfect," Belderes said.

See Solutions, next page

JAMES ARONOVSKY

Jim Belderes was able to create an instructional CD-ROM on photo restoration using Avid's Videoshop editing software. Selling the CD-ROM has since become a sideline to his business.

GORDON STUDER

MACINTOUCH

RIC FORD

Parts of System 7.5.3 arrive, but in beta version

Apple released Open Transport 1.1 to the public in the middle of February, but only as an unsupported Version 1.1b16. System 7.5 Update 2.0 was in "seed" versions apparently equivalent to late betas. System 7.5.3 itself was still unannounced and unreleased, but the version configured for specific models was in "final candidate" status and slated to be bundled with the new Apple servers later this month (see 02.26.96, Page 4).

It is not clear what the status of these Mac OS updates will be when you read this, but there are some basic things to note about the new stuff:

- The new Finder is a major update. Among other things, it preserves Get Info comments when it rebuilds the invisible Desktop file. It also performs better.
- New enablers (a System 7.5 Update 2.0 enabler and a separate System 7.5.3 enabler) address low-level hardware and Mac OS issues, replacing earlier enablers and patches.
- An impressive variety of bugs in the Mac OS are fixed, including some that cause crashes or memory leaks.
- Serial, networking and print drivers get important fixes.

See MacInTouch, next page

SOLUTIONS

From previous page

"The learning curve was a lot less than I expected. I had a job to do and I was able to do everything — editing, transitions, adding narration — all within the same program."

In addition to editing programs, Mac video producers also have access to an array of special-effects programs that allow them to create stylized video with the appearance of high-production values.

Nicke Kierstead, production director for MB Interactive Inc. of New York, has been a longtime Adobe AfterEffects admirer; he uses the program to create video for distribution on CD-ROM or on-line via the Web.

"I do a lot of advanced compositing, layers, compression and cropping," Kierstead said. And I think AfterEffects is better than [a dedicated effects workstation]. It's not as fast, but it does more."

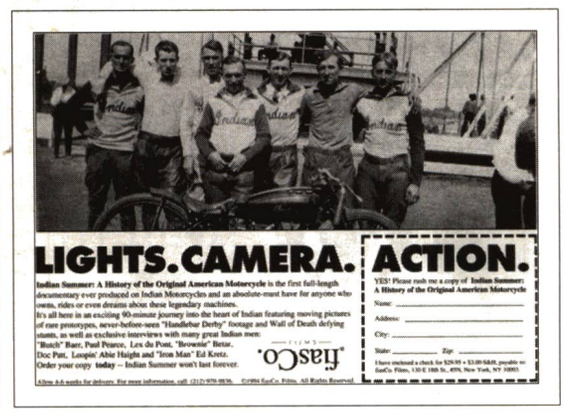
Trish Meyer is a motion-graphics artist and founder of CyberMotion in Calabasas, Calif., who counts Apple and Radius Inc. among her corporate clients. She is also a strong supporter of AfterEffects, which she uses to design 2-D animations for opening sequences in trailers, presentations and feature films.

"I like AfterEffects and the Mac because they allow me to skip storyboards and go right to creating a proof that might end up as the final work," Meyer said.

For example, Meyer used the Mac-based tools to create a two-minute opening sequence for the feature film "Now and Then" from New Line Cinema Corp.

According to Meyer, AfterEffects was more than up to the task of building the two-minute sequence, with rendering time of about 30 seconds per frame — film plays at 24 frames per second. Each frame took up about 7 Mbytes of storage.

"I have a friend who is a traditional film person, and she draws a lot of storyboards," Meyer said. "I tell her that the reason she draws storyboards is because it's too expensive to go into a high-end production suite and create comps. But you don't have to do that with the Mac."

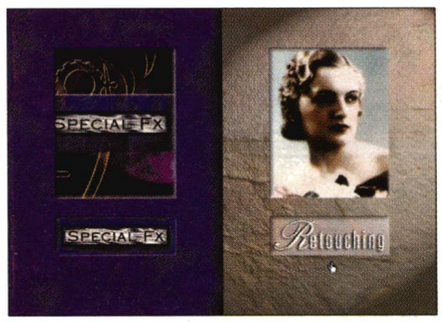


fiasCo. Films' Timothy Cataldo edited a documentary about Indian motorcycles using Premiere.

Plug it in

AfterEffects has also spawned a market of plug-in tools that bring even more specialized capabilities to the program. Dynamic Effects from Gryphon Software Corp. of San Diego; the TransJammer series from Elastic Reality Inc. of Madison, Wis.; and KPT Final Effects 3.0 from MetaTools Inc. of Carpinteria, Calif., offer users special effects such as the ability to generate fire, smoke, rain, explosions and dramatic color shifts on background elements. Independent video producers have found that these tools give them a lot of functionality at relatively low cost.

"In the past, we've had to do frame-by-frame rotoscoping [or animated effects] hoping to achieve an effect, like lights or sparks, that we can now easily achieve with a single KPT Final Effects plug-in," said Jeff Foster, president of Foster Digital Imaging Inc., a multimedia and video-production firm in Brea, Calif. He uses the KPT Final Effects plug-in with AfterEffects to create work for clients such as Sanyo Corp.



For this CD-ROM, Jim Belderes recorded the restoration techniques as QuickTime movies.

"It gives me the quality and power to finally compete with the bigger shops, which own high-end workstations, but because the tools are so good, I don't have to keep a lot of equipment around," Foster said.

"We're a small company that's competing with video-production houses, but we're able to do the work on our Mac that people are having to pay five times more for. I think that's pretty incredible," he said.

Joe Sparks, CEO of game designer Pop Rocket Inc. of San Francisco, turned to one of the programs specifically designed for creating morphing effects — the process in which one image is transformed into another — to create the unusual characters featured in his company's award-winning game Total Distortion.

"We used MovieFlo [from The Valis Group of Tiburon, Calif.,] to distort the facial expressions of our characters," Sparks said. "We can create a lot of different expressions — stretched-out faces and wide eyes and mouth — that would have just been impossible to animate by hand and would have been very expensive if we had tried to get something even close. For very little money, we got this great tool."

According to these video producers, if the Macintosh has top billing as the desktop platform for digital video editing and production, it's only because of the glue that holds it all together: the Mac's professional-quality video-editing and effects software.

"I compare video on the Mac to the early days of print when you had QuarkXPress 1.0 and a laser printer," Meyer said. "You could do a lot of things in print for a relatively low cost."

Up until two years ago, Meyer specialized in print work. When she decided to make the move into 2-D animation and digital film, she found she could build an affordable digital video editing suite based around her Power Mac.

"With my Mac and AfterEffects, I can take a totally uncompressed file and go to a post-production house for output to film," Meyer said. "But I can make all the proofs that I need before I even get to the post house. The end result is that I can get high-quality at a low price for my client without spending time in a high-end studio." □

Solutions in the works

We want to know the difficulties, successes and failures you've experienced in the areas defined below. Send your comments to solutions@macweek.com. Please include information on how to contact you.

- Photoshop users: Relate your experiences regarding what techniques you have used for Photoshop acceleration.
- If you have used entry-level CD-Recordable drives, we would like to hear about your experiences and your reasons for purchasing them.

MACINTOUCH

From previous page

- Creating a universal System 7.5.3 configuration starts with a custom install of System 7.5 "For Any Macintosh." You need an older Mac model to do this. System 7.5 will not install, for example, on a Power Mac 7500, even on a separate, non-start-up volume.
- Bugs in various utilities, such as General Controls and Apple Menu Options, are squashed. The bizarre Sound & Displays control panel from System 7.5.2 is replaced by a new Monitors & Sound control panel.
- Apple finally describes, in its electronic documentation, the myriad Mac OS files in the System folder.
- Open Transport is required and installed on PCI-based Macs, but it is optional for 680x0-based Macs. The System 7.5 Update 2.0 installer puts Open Transport 1.1 on pre-PCI Macs only if an older Open Transport version is present or via the Custom install option.
- A new utility in the update, Network Software Selector, is capable of switching from Open Transport AppleTalk to "classic" AppleTalk, which may help some applications. This requires a restart.
- The beta release, Open Transport 1.1b16, is incompatible with 5200, 5300, 6200 and 6300 series computers, and with the Macintosh IIvi. It also has problems on PowerBook 190, 2300, 5300 and upgraded 540 models using System 7.5.2.
- Some essential utilities, such as the current versions of LaserWriter Bridge, LocalTalk Bridge 2.0.1, MacTCP Watcher, Apple IP Gateway and AppleTalk Internet Router, are incompatible with Open Transport.

Distribution of System 7.5 Update 2.0 is an open question right now.

Distribution of System 7.5 Update 2.0 is an open question as I write this. The smart approach for Apple would be charging only a nominal handling fee (less than $20) to send it on CD-ROM, as well as making it available on the Internet. Open Transport 1.1b16, with important documentation, was posted at http://www.support.apple.com/pub/apple_sw_updates/US/Macintosh/Unsupported/.

More net notes

Apart from the new Mac OS releases and Open Transport 1.1, there are some other bugs and tricks swirling around the Mac networking scene.

John Topping posted an irreverent exposé on the Web that may shed some light on the mystery of terrible LocalTalk performance of first-generation Power Macs in a few situations. The issue affects only LocalTalk networks and relates to low-level serial controllers and drivers. Topping's solution is to hack some of the resources in the System file. If the problem sounds familiar, you can find Topping's discussion at http://www.his.com/~jtopping/appletalk/cocaine.html.

Another reader reported problems after installing AppleShare Workstation 3.6.1 on Quadra 700 models from the AppleShare 4.2 Upgrade CD-ROM. Performing the same installation from Apple's Dec. 19 AppleShare Workstation Version 3.6.1 Installer disk worked fine. (There may be a problem with this CD.)

Offsides

A third problem may be obvious to Mac veterans, but it is a tough trap for novices, and the Finder offers no clues for avoiding it. Turning on Calculate Folder Sizes in the Views control panel exacts a big performance penalty in the Finder for local disks. If remote volumes are involved, it can bring the network to its knees.

Lastly, Miramar Systems Inc. is working on a patch for MacLAN Connect 5.0 to address freezes transferring large files with AppleShare Workstation 3.6.1. □

Comments on MacInTouch are welcome at (508) 897-2621. Please address e-mail to 72511,44 on CompuServe or ricford@macintouch.com on the Internet. The MacInTouch home page is at http://www.macintouch.com/~ricford/.

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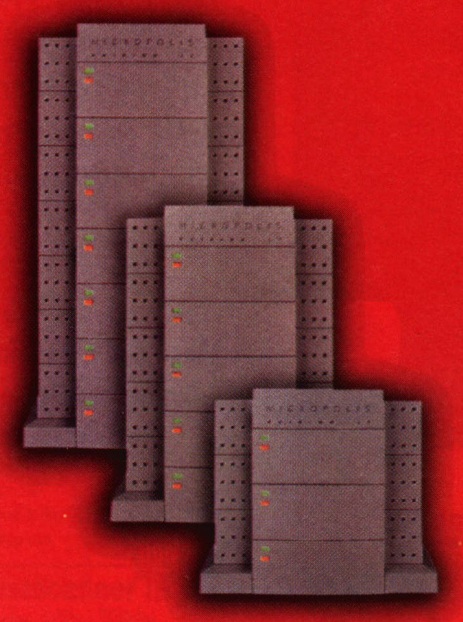

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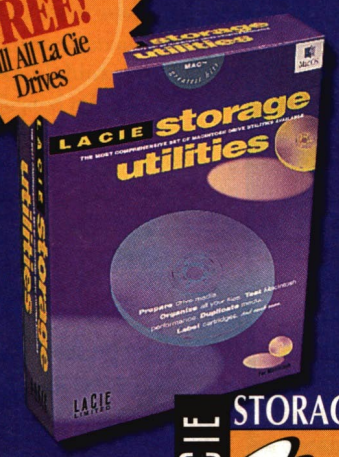

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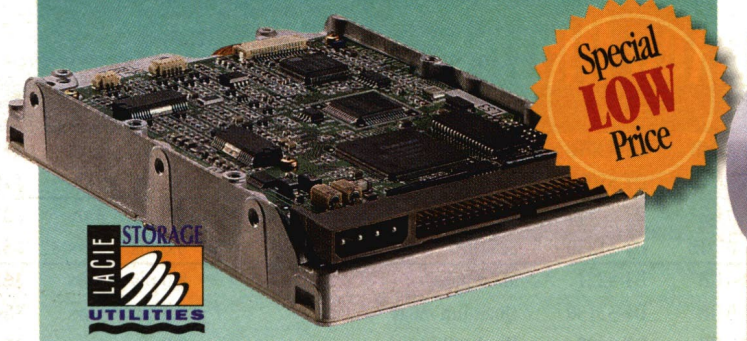

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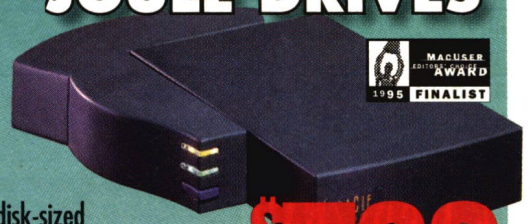

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230MB Optical	1 year warranty NEW!	$529

Joule RAID

Quantum drives bundled with Trillium Research Software configurable to levels 0, 1, 4 & 5.		RAID Drives only	RAID with SCSI CARD
4.2GB	3 year warranty	$1999	$2299
8.4GB	3 year warranty	$3499	$3799
16.8GB	3 year warranty	$6999	$7299
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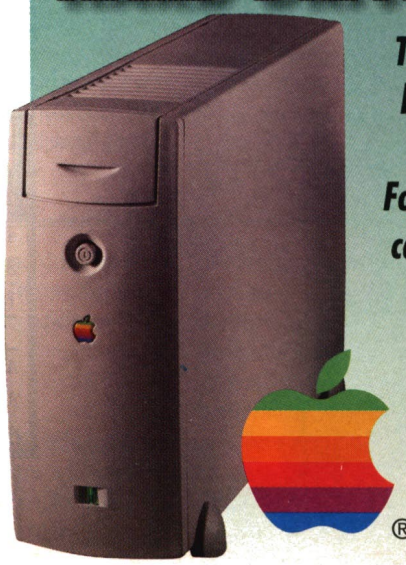
APPLE EXTERNAL HARD DRIVES

1995 MAC HOME JOURNAL READERS' CHOICE



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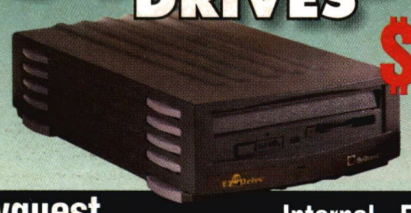
SYQUEST DRIVES



$229 EZ135

Syquest		Internal	External	Cartridge
EZ135MB	Includes FREE cartridge 2 year warranty		$229	$19.95
200MB	1 year warranty	$319	$369	$79
270MB	1 year warranty	$329	$399	$59

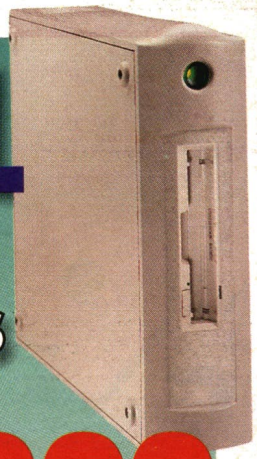
CD-R DRIVES

- CD-Rs ship with Gear Multimedia software.
- Low cost media for backup.

$1099 2X Read/Write

2X Read / 2X Write		$1099
4X Read / 2X Write Yamaha	NEW!	$1199
4X Read / 4X Write Yamaha	NEW!	$2399
650MB CD-R Disk 74 Minutes	10 Disk Pack	$79

OPTICAL AND DAT DRIVES



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- DAT – The ideal medium for data backup.

$1999 2.6GB Optical

Other Optical		
230MB PowerBook Internal	1 year warranty	$399
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230MB External	1 year warranty	$469
230MB Optical Cartridge		$19.95
2.6GB External	1 year warranty	$1999
2.6GB Optical Cartridge		$99

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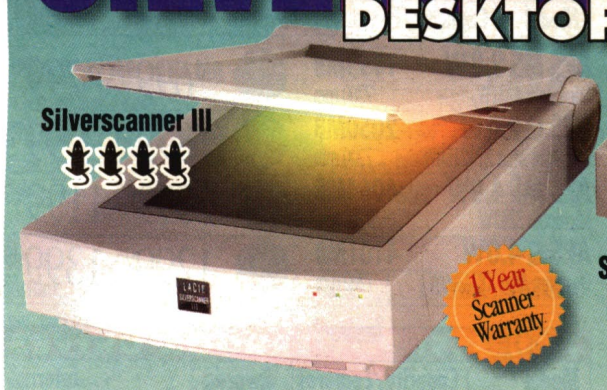

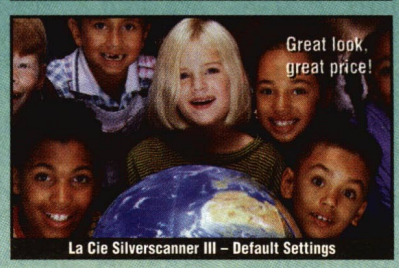

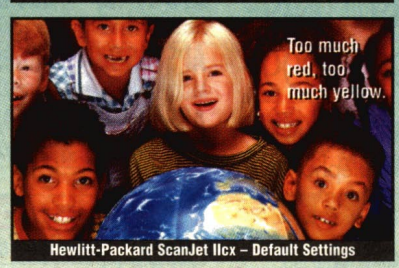

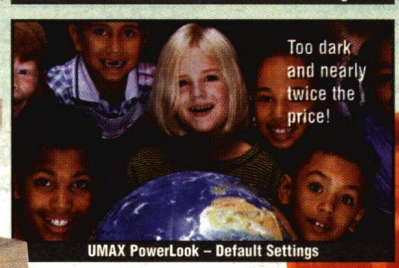

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- ✔ Over 1GB capacity with Fast SCSI-2 interface
- ✔ IBM Magneto-Resistive (MR) head technology
- ✔ 5400 rpm mechanism
- ✔ 3-year warranty

Exceptional value, the high performance, low power - what more could you ask? The APS I 1080 formats to 1034MB and delivers sustained transfer rates of 3.32MB /sec. (read) and 3.67MB/sec. (write). Rated at 350,000 hours MTBF, the APS I 1080 has a three-year warranty.

COSTS LIKE 5400 PERFORMS LIKE 7200

APS MS 2000 MICROPOLIS

- ✔ 7.31MB/sec. sust. write, 4.54MB/sec. sust. read
- ✔ 5400 rpm mechanism
- ✔ 5-year warranty

$549.95 *Internal configuration*

That's right, this incredible drive has the performance you'd expect from a 7200 RPM mechanism but with a 5400RPM drive's price -and reliability! The APS MS 2000 formats to 2047MB; delivers sustained reads at up to 4.54 MB/sec. and sustained writes at up to 7.31 MB/sec; has an avg. access time of 20ms and avg. seek of 9.6ms. The APS MS 2000 has a 5-year warranty and is rated at 650,000 MTBF.

2GB BARGAIN

APS I 2160 IBM.

- ✔ 8ms average seek
- ✔ Over 2060MB Formatted capacity
- ✔ The best value for performance and capacity
- ✔ 5-year warranty

JUST $499.95 *Internal configuration*

MacUser ZD LABS ★★★★½

What a deal - 2063MB for under $230! Great performance, IBM MR head technology and 800,000 hour MTBF make this the drive to buy for all those needy workstations.

APS SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS Q 840 Quantum 840 Trailblazer	**811MB** 4500 rpm	LABS ★★★★	$199.95	$299.95
APS I 1080 IBM DPES 31080	**1034MB** 5400 rpm		229.95	329.95
APS Q 1080 Quantum 1080 Fireball	**1042MB** 5400 rpm	◆◆◆◆ MacWEEK, LABS ★★★★	259.95	339.95
APS Q 1280 Quantum Fireball II 1280	**1222MB** 5400 rpm		299.95	399.95
APS I 2160 IBM Ultrastar ES	**2063MB** 5400 rpm		499.95	599.95
APS MS 2000 Micropolis 4421	**2047MB** 5400 rpm	Power Matched for PowerPC	549.95	649.95
APS ST 4200 Seagate ST 15230N Hawk	**4094MB** 5400 rpm	LABS ★★★★	899.95	999.95

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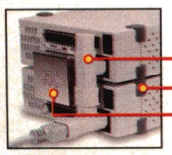

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APS HIGH-PERFORMANCE SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS MS 2.0 Micropolis 4221	**1955MB** 7200 rpm	Power Matched, LABS ★★★½	$599.95	$699.95
APS Q 2.0 Quantum Atlas XP32150	**2050MB** 7200 rpm	Power Matched, LABS ★★★★	799.95	899.95
APS ST 2.0 Seagate ST 32550N	**2047MB** 7200 rpm	Power Matched	749.95	849.95
APS MS 4.0 Micropolis 3243	**4064MB** 7200 rpm	Power Matched, LABS ★★★★	999.95	1099.95
APS Q 4.0 Quantum Atlas XP34300	**4101MB** 7200 rpm	Power Matched, LABS ★★★★½	1199.95	1299.95
APS ST 4.0 Seagate ST 15150N	**4094MB** 7200 rpm	Power Matched, LABS ★★★½, ◆◆◆◆	1199.95	1299.95
APS MS 9.0 Micropolis 1991	**8669MB** 5400 rpm		1999.95	2199.95
APS ST 9.0 Seagate ST410800N	**8669MB** 5400 rpm		2199.95	2399.95

APS AUDIO/VIDEO SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS MS 2.0AV Micropolis 4221AV	**1955MB** 7200 rpm	Power Matched	$699.95	$799.95
APS MS4.0AV Micropolis 3243AV	**4064MB** 7200 rpm	Power Matched	1099.95	1199.95
APS MS9.0AV Micropolis 1991AV	**8669MB** 5400 rpm	LABS ★★★★	2099.95	2299.95

APS FAST/WIDE SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS MS 2.0W Micropolis 4221W	**1955MB** 7200 rpm	Power Matched	$699.95	$799.95
APS Q 2.0W Quantum Atlas XP32150W	**2050MB** 7200 rpm	Power Matched	899.95	999.95
APS MS 4.0W Micropolis 3243W	**4064MB** 7200 rpm	Power Matched	1099.95	1199.95
APS Q 4.0W Quantum Atlas XP34300W	**4101MB** 7200 rpm	Power Matched	1299.95	1399.95

APS SCSI POWERBOOK DRIVES

Model	Capacity/Features	Awards	Internal
APS I 1.2 IBM Travelstar XP	**1160MB** 4900 rpm		$699.95

APS IDE POWERBOOK DRIVES

Model	Capacity/Features	Awards	Internal
APS Q 810 Quantum Europa	**778MB** 3800 rpm, Fast ATA-2		$399.95
APS Q 1.08 Quantum Europa	**1037MB** 3800 rpm, Fast ATA-2	NEW LOW PRICE	474.95

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- ✔ Twice the speed of old model – up to 19MB per min.
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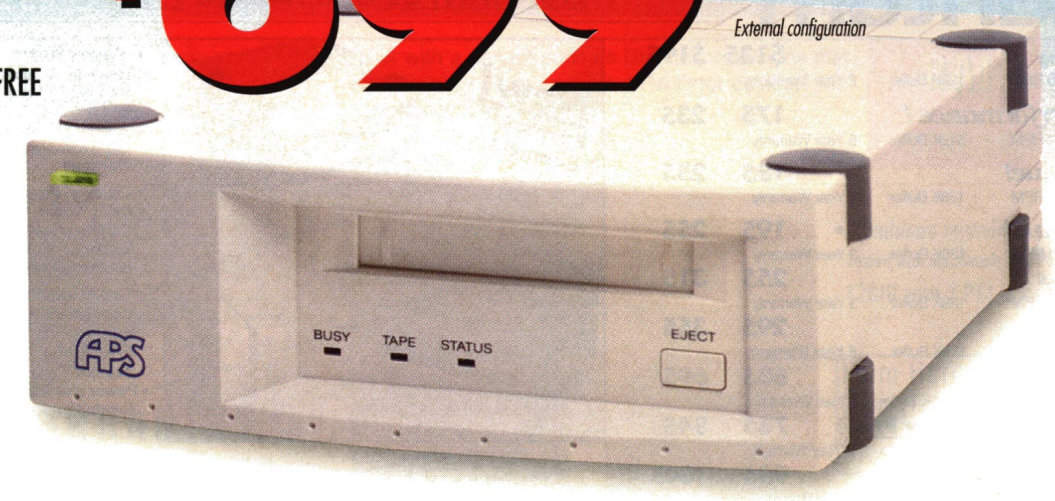
- ✔ Includes the latest Retrospect 3.0 backup software – FREE

$699.95 *External configuration*

Back again by popular demand, the APS DAT packs up to 2GB of uncompressed data on a 90m DAT tape at a remarkable 19MB per minute, nearly twice as fast as a standard DAT drive! To backup a workstation or a small network, the APS DAT delivers both entry level price AND professional performance.



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- ✔ Best performing removable cartridge drive

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MacUser ZD LABS

	Capacity	Access	Seek	Read Trans.	Write Trans.	Warranty	Price per MB
APS SQ 3270	255MB	27ms	13ms	1.8m/sec.	1.6m/sec.	2-year	$1.17
Zip	96MB	45ms	33ms	1.0m/sec.	1.0m/sec.	1-year	$2.07
EZ135	128MB	27ms	13ms	1.1m/sec.	0.8m/sec.	1-year	$1.80

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- ✔ Up to 40GB on a single tape
- ✔ Dual-linear recording for maximum throughput
- ✔ Excellent for server and workstation backups
- ✔ Includes the latest 3.0 Retrospect backup software – FREE

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IN STOCK! **DLT30 with up to 30GB of storage**

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DLT40 with up to 40GB of storage

MACUSER EDITORS' CHOICE AWARD 1995 FINALIST

Ultra-fast server backup and restore, that's what these incredible tape backup systems are all about. With real-life backup speeds as high as 100MB per minute and hardware-compressed data capacities of up to 40GB per tape, the APS DLT series of drives is the ultimate solution for that shrinking server backup window.

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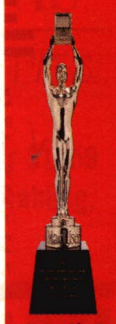
MacUser Editor's Choice Award

Consultants Choice Award

APS SYQUEST DRIVES

Model	Capacity/Feature	Awards	Internal	SR2000
APS SQ 3270 Our best performing removable cartridge drive	255MB	MacUser ZD LABS ★★★★	N/A	$299.95*
APS SQ 5200 Ultimate storage flexibility	194MB	MacWEEK MacUser ZD LABS ★★★★½ NEW LOW PRICE!	N/A	389.95

While supplies last! CALL NOW! SQ 270 Cartridge $59.95

APS CD-ROM DRIVES

Model	Features	Awards	Internal	SR2000
APS PD4CD-ROM/Removable Optical 600MB optical storage with 4X CD-ROM in one device			N/A	$499.95*
APS T 3701 Sustained data transfer rates up to 1000KB per second!	6.7X-SPEED		$299.95 NEW LOW PRICE	329.95
APS CD-R FREE TOAST CD-ROM Pro CD recording software ($500 value)	Recordable CD-ROM		N/A	999.95*

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While supplies last, you can purchase 3-packs of unformatted Sony 3.5" MO media at a special low price and receive a free CD-ROM. Containing 100 exciting video clips of motivational quotes from famous people.

	REG. PRICE	SALE PRICE
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SONY 3-PK 230MB MO WITH CD-ROM	113.85	89.95

APS QIC & DAT TAPE BACKUP DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS HyperQIC™ QIC 3080 Mechanism	2GB	◆◆◆◆ MacWEEK MacUser ZD LABS ★★★½	N/A	$499.95
APS DAT DDS-1 Non-Compression Mech.	2GB	Back Again by popular demand!	$649.95	699.95
APS HyperDAT DDS-2 Compression Mechanism	8GB		849.95	899.95
APS HyperDAT Pro DDS-2 High-Speed Mechanism	8GB		1049.95	1099.95
APS DATLoader600 Ideal for large unattended network backups	48GB		N/A	2499.95

APS MO DRIVES

Model	Capacity/Features	Awards	SR2000
APS 230MB MO Olympus mechanism	4500 rpm drive	MacUser ZD LABS ★★★★	$449.95
APS 1.3GB MO Sony SMO F-531 mechanism	4MB cache		1699.95
OPTICAL JUKEBOX, SINGLE DRIVE Sony mechanism	Up to 26GB of ultra-reliable MO storage/includes software		5999.95

- 30-day money-back guarantee on all APS brand products. Your risk is the cost of shipping.
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- Refused orders subject to 20% restocking fee.
- Listed capacities are formatted
- Actual data compression and tape capacity vary greatly depending on the type of data recorded, other system parameters and environment.
- Internal hard drives include brackets, cables, cords and LEDs required for operation with the specified Macintosh where applicable. External SCSI-2 drives come with a premium SCSI cable, power cord and user guide.
- All hard drives from APS Technologies come preformatted with Apple's System 7.0.1 software, and APS Technologies' APS PowerTools SCSI formatter/hard disk partitioner. You may need to install system software appropriate to your machine before use.
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APS DLT TAPE BACKUP DRIVES

Model	Capacity/Features	Awards	SR2000
APS DLT30 Digital Linear Tape Mechanism	30GB	MACUSER EDITORS' CHOICE AWARD 1995 FINALIST	$3999.95
APS DLT40 Digital Linear Tape Mechanism	40GB		5499.95
APS DLT4500 Loader Digital Linear Tape Mechanism	200GB		9999.95
APS DLT4700 Loader Digital Linear Tape Mechanism	280GB		11499.95

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- ✔ Huge 4MB cache buffer

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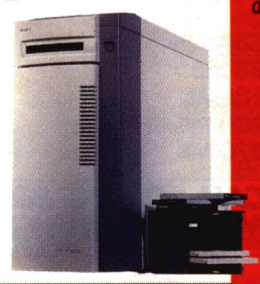

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	535 MB *Performance !*			175	235
	9 ms Seek	5400 RPM	512K Buffer	5 Year Warranty	
	730 MB *Value!*			185	255
	11 ms Seek	5400 RPM	128K Buffer	2 Year Warranty	
	850 MB *Value!*			195	255
	11 ms Seek	5400 RPM	128K Buffer	3 Year Warranty	
	1080 MB Fireball			255	315
	11 ms Seek	5400 RPM	128K Buffer	3 Year Warranty	
	1280 MB Fireball II			295	355
	11 ms Seek	5400 RPM	128K Buffer	*5 Year Warranty*	
√	**2.2 GB** *Saturn*			635	695
	8.5ms Seek	5400 RPM	1024K Buffer	5 Year Warranty	
	2.0 GB Atlas *New Low Price!*			735	845
	8ms Seek	7200 RPM	1024K Buffer	5 Year Warranty	
	4200 MB Grand Prix			985	1045
	8.6 ms Seek	7200 RPM	512K Buffer	5 Year Warranty	
√	**4.3 GB** Atlas			1075	1135
	8ms Seek	7200 RPM	2048K Buffer	5 Year Warranty	

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IBM 1.2 GB *DeskStar With MR Heads... FAST!*	$225	$325
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Seagate

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	4.2 GB ST 4200			855	905
	9 ms Seek	5400 RPM	512K Buffer	5 Year Warranty	
	2.5 GB Barracuda 2			765	825
	8 ms Seek	7200 RPM	1024K Buffer	5Year Warranty	
	4.3 GB Barracuda 4			1185	1245
	8 ms Seek	720000 RPM	1024K Buffer	5 Year Warranty	
	2.5 GB Fast & Wide Barracuda 2			825	925
	8 ms Seek	7200 RPM	1024K Buffer	5 Year Warranty	
	4.3 GB Fast & Wide Barracuda 4			1245	1345
	8 ms Seek	7200 RPM	1024K Buffer	5 Year Warranty	
	9.0 GB Elite			1995	2095
	11 ms Seek	5400 RPM	1024KBuffer	5 Year Warranty	
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Capacity			*Int.*	*Ext*
2.1 GB • *Also Available in Fast & Wide SCSI 2*			595	655
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Fast SCSI 2 8 ms Seek	7200 RPM	512K Buffer	5 Year Warranty	
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Fast SCSI 2 11 ms Seek	5400 RPM	512K Buffer	5 Year Warranty	

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4.3 GB • *Also Available in Fast & Wide SCSI 2*			1070	1130
Fast SCSI 2 8.5 ms Seek	7200 RPM	512K Buffer	5 Year Warranty	
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Fast SCSI 2 11ms Seek	5400 RPM	512K Buffer	5 Year Warranty	

All Micropolis hard drives are covered by a 5 year advance replacement warranty. If at anytime during the warranty period your drive should fail it can be replaced in 24 hours. NO WAITING FOR REPAIRS!

IBM

IBM drives utilize IBM's advanced Magneto-Resistive(MR) disk technology which increases the amount of data stored per disk surface and reduces the number of disks and heads making the IBM series more slim-lined , reliable & Faster

	540 MB *DeskStar*			$175	$235
	9 ms Seek	5400 RPM	128K Buffer	5Year Warranty	
√	**1.2 GB** *DeskStar*			225	299
	9 ms Seek	5400 RPM	512K Buffer	5 Year Warranty	
	2.0 GB *UltraStar ES* *Value!*			755	815
	7.5 ms Seek	7200 RPM	512K Buffer	5 Year Warranty	
	2.2 GB *UltraStar XP* *AV Performance!*			755	815
	7.5 ms Seek	7200 RPM	512K Buffer	5 Year Warranty	
	4.3 GB *UltraStar XP* *AV Performance!*			1165	1225
	8 ms Seek	7200 RPM	512K Buffer	5 Year Warranty	
	5.3 GB UltraStar			1375	1435
	8ms Seek	5400 RPM	512K Buffer	5 Year Warranty	

Macintosh formatted capacities vary.. Call our hard drive experts today!

FUJITSU

	1.2 GB			285	345
	9 ms Seek	5400 RPM	512K Buffer	3 Year Warranty	
	2.1 GB			685	745
	8.5ms Seek	7200 RPM	1024K Buffer	5 Year Warranty	
	4.2 GB			1075	1135
	8ms Seek	7200 RPM	1024K Buffer	5 Year Warranty	

SyQuest TECHNOLOGY

DRIVES

Capacity	*Model*	*External*
88 MB	SQ5110C	$345
135MB	SQEZ135	225
200 MB	SQ5200	395
270 MB	SQ3270	405

CARTRIDGES

Capacity	*Price*
44 MB	$40
88 MB	45
135 MB	19
200 MB	70

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PCI/NUBUS ACCELERATORS

√ Adaptec 2940WM $295
Adaptec's Power Domain 2940W-PCI to Fast/Wide SCSI 3 Accelerator. Increase transfer rates up to 20MB/sec. on your Power Macintosh PCI system. An ideal solution for publishing, prepress, digital video, multimedia, and any graphics intensive program.

Atto Express PCI $345
Single channel RISC based PCI to Fast/Wide SCSI 3 accelerator card for Apple's PCI based computers. Ideal solution for your audio, video, prepress, and real time applications. Transfer rates up to 20MB/sec.Formatting software included.5 year warranty. Call for Disk Array Solutions! Also available in Dual Channel.

Atto Silicon Express 2 $485
SCSI 1 & 2 support,transfer rates up to 10.0 MB/sec.,supports multiple block sizes,takes advantage of parallel processing capability.Ideal for graphic design, multimedia applications and More!

Atto Silicon Express 4 $829
Fast/Wide 16BIT SCSI 2 accelerator card for Apple's Nubus based computers. Supports fast/wide SCSI 2 (16 Bit) transfer rates up to 20MB/sec. and fast SCSI 2 (8 Bit) transfer rates up to 10 MB/sec. Full 16 Bit wide support for the latest drives and disk arrays. Fully compatible with all existing SCSI 1 drives. Formatting software is included.5 Year Warranty.

New! FWB JackHammer $455
Fast/Wide 16BIT SCSI 2 accelerator card for Apple's Nubus based computers. Supports fast/wide SCSI 2 (16 Bit) transfer rates up to 20MB/sec. and fast SCSI 2 (8 Bit) transfer rates up to 10 MB/sec. Full 16 Bit wide support for the latest drives and disk arrays.

New! FWB PCI JackHammer $385
Single channel RISC based PCI to Fast/Wide SCSI 3 accelerator card for Apple's PCI based computers. Ideal solution for your audio, video, prepress, and real time applications. Transfer rates up to 20MB/sec.Formatting software included.5 year warranty. Call for Disk Array Solutions! Also variable in Dual Channel.

REMUS Disk Array RaidLevel 0 - 5 $Call

CD ROM & CD WRITERS

√	**4x Pioneer CD ROM** 150 MS seek 256 K Cache Tray Design	$189
	4 x 6 Disk Pioneer CD ROM Changer	$455
	4x Toshiba CD ROM 150 MS seek	$235
	6x Toshiba CD ROM 102 MS seek256 K Cache	$435
	2x Yamaha CDE 1020 Includes *TOAST!* 2x CD Writer• 4x CD ROM	$1175
√	**4 x Yamaha CDE 100 Includes *TOAST!*** 4 x CD writer•Multisession•Selectable Speed	$1995

Prices are external and include all cables for a PLUG & PLAY Solution.

Tape Backup Drives

Retrospect 3.0 and 1 tape included with all ProDirect tape drives.

HEWLETT PACKARD

Capacity	*Model*	*Media*	*Int.*	*Ext.*
2.0 GB	35470	4mm	$925	$985
3-5 GB	35480	4mm	995	1055
4-8 GB	1533A	4mm	1235	1295
24-60 GB	1553A Auto Tape Loader		3195	3295

CONNER

Capacity	*Model*	*Media*	*Int.*	*Ext.*
2-4 GB	CTD4004	4mm	739	779
4- 8GB	CTD8000	4mm	939	989
20-50 GB	4586 Auto Tape Loader		2095	2195

Exabyte

Capacity	*Model*	*Media*	*Int.*	*Ext.*
2-5 GB	8205XL	8mm	$1395	$1485
7-14 GB	8505XL	8mm	2055	2115

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"Direct Connections provided excellent technical support." **MacWorld July'95**
"Direct Connections' array offered the best performance per dollar of the drives tested." **Digital Video Oct. '94**
"Your next option is to locate...highly visible digital video suppliers like Direct Connections." **NEWMEDIA June '95**
"This array is the one to beat." **Ken Grey** Writer for WIRED, Computer User, MovieMaker, Computer Video, and Digital Video Magazine.
"Stick with a vendor such as Direct Connections that understands how to prepare a RAID for desktop video." **MacWorld April '95**

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- Factory direct products
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- $5 million in inventory
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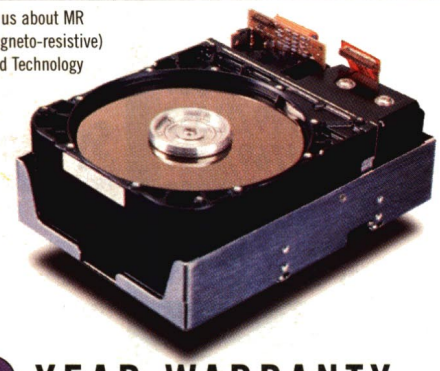


5 YEAR WARRANTY

BRAND/MODEL	CAPACITY		ACCESS	RPM	INTERNAL	EXTERNAL
Hitachi 2.5" IDE***	540MB		14MS	5400	$ 245	
Hitachi 2.5" IDE***	810MB		14MS	5400	$ 339	
Hitachi 2.5" IDE***	1.0GIG		14MS	5400	$ 425	
Conner CFP1080s	1.2GIG	LP	11MS	5400	$ 295	$ 365
Seagate ST51080N ***	1.2GIG	LP	12.5MS	5400	$ 290	$ 360
Seagate ST31231N***	1.2GIG	LP	9MS	5400	$ 395	$ 465
Seagate Hawk	2.4GIG	LP	9MS	5400	$ 655	$ 725
Conner CFP2105S	2.1GIG	LP	9MS	5400	$ 585	$ 655
Conner CFP2107S	2.1GIG	LP	8MS	7200	$ 759	$ 829
Quantum Capella	2.2GIG	MR	8.6MS	5400	$ 699	$ 799
Quantum Atlas	2.1GIG	LP	8MS	7200	$ 795	$ 865
Seagate Barracuda 2	2.5GIG	LP	8MS	7200	$ 815	$ 885
Seagate Barracuda 2W	2.5GIG	LP	8MS	7200	$ 939	$ 999
Conner CFP2107W	2.5GIG	LP	8MS	7200	$ 795	$ 895
Fujitsu M2934S	4.2GIG	MR	8MS	7200	$ 1125	$ 1195
Fujitsu M2934W	4.2GIG	MR	8MS	7200	$ 1175	$ 1275
Seagate Barracuda 4	4.1GIG		8MS	7200	$ 1195	$ 1265
Seagate Barracuda 4W	4.1GIG		8MS	7200	$ 1255	$ 1325
Seagate ST15230N	4.3GIG		9MS	5400	$ 899	$ 999
Conner CFP4207S	4.2GIG		9MS	7200	$ 1045	$ 1115
Conner CFP4207wide	4.2GIG		9MS	7200	$ 1099	$ 1199
Quantum Atlas	4.3GIG		8.6MS	7200	$ 1099	$ 1169
Seagate Elite 9	9.0GIG		11MS	5400	$ 2095	$ 2195
Seagate Elite 9W	9.0GIG		11MS	5400	$ 2295	$ 2395

CD RECORDERS/PLAYERS

Ricoh 2 speed recorder / 2 speed player

$949

4 speed Recorder
4 speed Player
4 GIG Hard drive
10 Blank CD's
1 Toast Software
$2995

Includes Free software and 10 CD's

Yamaha 4 speed Recorder / 4 Player	External	$ 1749
Yamaha 2 speed Recorder / 4 speed Player	External	$ 1145
Yamaha 2x4 Recorder with built in hard drive	External	$ 1529
Pioneer 4 speed 6-Disc CD-ROM Changer	External	$ 325
Toshiba 3701 6 speed CD Player	External	$ 445
Pioneer 4 speed CD Player	External	$ 265
Panasonic PD 4 speed/650mb Optical	External	$ 635

Many CD Tower Configurations available. Upto 500 Disks!

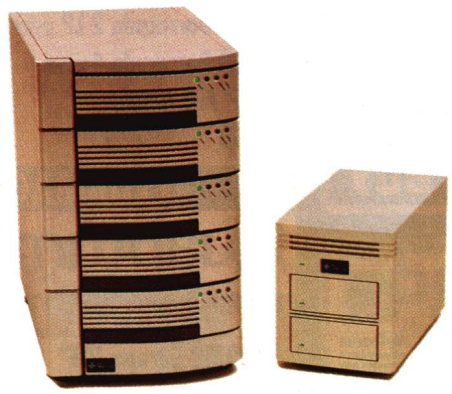
MEDIA

128MB	Optical	$ 15	10 Blank CD's		$ 69
230MB	Optical	$ 25	90M 4MM Tape		$ 8
1.3GIG	Optical	$ 69	160M 8MM Tape		$ 18

"Stick with a vendor such as Direct Connections that understands how to prepare a RAID for desktop video." MacWorld April '95

RAID SYSTEMS

FAST DESKTOP OR SERVER



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Atto Silicon Express IV	$ 835
Atto Express PCI MC	$ 765
Atto Express PCI SC	$ 345
Adaptec AHA-2940W	$ 245
SCSI Expander	$1345

MEDIA 100 TARGA 2000 radius

OPTICAL DRIVES

2.6GIG Sony Optical for $1959 external including all cabling, and software!!

CAPACITY	MODEL	EXTERNAL
230MB	Fujitsu	$ 499
1.3GB	NEC	$ 1295
1.3GB	Sony 4MB cache	$ 1695
2.6GB	Hitachi	$ 1895
2.6GB	Sony	$ 1959
26GB	Sony Jukebox	$ 4695

1 YEAR WARRANTY

TAPE BACK-UP

We are the tape-backup Experts

2 YEAR WARRANTY

With 2.5MB/sec sustained transfer, the DLT2000XT is perfect for digital video or pre-press with large data files.

All systems include one tape cartridge, cabling, and Retrospect software.

CAPACITY	MODEL	MEDIA	INTERNAL	EXTERNAL
-4GIG	Tandberg Panther	1/4"	$ 469	$ 539
-8GIG	Sony 7000 DDS-2* 1.5MB/sec	4MM	$ 1199	$ 1299
-14GIG	Exabyte 8505XL	8MM	$ 2065	$ 2125
-10GIG	Exabyte 8505S	8MM	$ 1475	$ 1575
-30GIG	DLT2000XT	1/2"		$ 3299
-40GIG	DLT4000	1/2"		$ 5499
-140GIG	Exabyte-10h Library	8MM		$ 4999
-200GIG	Spectra Logic 4000	4MM		$ 8599
-280GIG	Breece Hill Library	1/2"		$ 27999

DIRECT CONNECTIONS 7668 Executive Drive Eden Prairie, MN 55344 Gov't, Corp, and Univ. P.O's accepted. *1YR Warranty 30 day money back does not apply towards media and software.

1-800-258-2622 CLUBMAC 1-800-258-2622 1-800-CLUBMAC

CLUBMAC HARD DRIVES

Quantum

		Internal/External	Internal/External
850MB TrailBlazer		C104 0002/C104 0052	$199/$259
1080MB Fireball		C104 0000/C104 0050	$259/$319
1280MB Fireball		C104 0001/C104 0051	$299/$359
2200MB Capella		C104 0003/C104 0053	$629/$689
2150MB Atlas		C104 0004/C104 0054	$739/$799
4300MB Atlas	BEST BUY	C104 0005/C104 0055	$969/$1029

Seagate

1.0GB Medalist 5108ON		C104 0302/C104 0352	$269/$329
4.3GB Hawk 4 15230N		C104 0304/C104 0354	$999/$1059
2.5GB Barracuda 2 LP 32550N		C104 0300/C104 0350	$769/$829
4.3GB Barracuda 4 15150N		C104 0301/C104 0351	$1199/$1259
5.25" Full Height			
9.1GB Elite-9 410800N		C104 0305/C104 0355	$2199/$2299

CLUBMAC 2.5" DRIVES

Quantum

	Internal	Internal
810MB Europa IDE*	C104 0007	$329 Internal
1080MB Europa IDE*	C104 0008	$419 Internal

*Compatible with PowerBook 150 and 5300 series only.

CLUBMAC FAST AND WIDE DRIVES

Seagate

	Internal/External	Internal/External
2.1GB Barracuda 2LP ST32150W	C104 0400/C104 0450	$959/$1059
4.3GB Barracuda 4 ST15150W	C104 0401/C104 0451	$1319/$1419
9.1GB Elite 9 ST410800W	C104 0401/C104 0452	$2379/$2499

Quantum

2.2GB Capella VP32210SW	C104 0100/C104 0150	$699/$799
4.3GB Grand Prix XP34301SW	C104 0101/C104 0151	$1029/$1129

Fast and Wide Controllers

adaptec

A024 1006	PowerDomain AHA 2940W SCSI Accelerator	$299
A029 1001	Adaptec Remus 1.3 (Raid Levels 1, 4, 5) (Software)	$439

FWB incorporated

F094 1033	SCSI JackHammer PCI	$389
F094 1002	SCSI JackHammer NuBus	$459

QLogic

Q010 1008	Fast!SCSI MAC PCI-N for Fast SCSI-2 (10 MB/sec) connectivity	$229
Q010 1009	Fast!SCSI MAC PCI-W for Fast/Wide SCSI (20 MB/sec) connectivity	$295
Q010 1010	Fast!SCSI MAC PCI-D for Fast/Wide SCSI where longer I/O cables required	$449

CD-ROM READERS

NEC

		Access time	Trans Rate	
N024 1062	MultiSpin 6Xe CD-ROM Reader	150ms	900k/sec.	$479
N024 1070	MultiSpin 4Xc 7 Disc Changer	350ms	600k/sec.	$339
N024 1011	MultiSpin 3Xp plus Portable CD-ROM	240ms	500k/sec.	$349

ClubMac

		Access time	Trans Rate	
C104 1600	ClubMac Six-Speed CD-ROM Drive	140ms	900k/sec.	$299
C104 1500	ClubMac Quad-Speed CD-ROM Drive	140ms	600k/sec.	$179
C104 1400	ClubMac Classic 2X CD-ROM Drive	250ms	300k/sec	$99

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C104 1800	ClubMac 88MB 5.25" Removable* BEST BUY	$199
C104 1802	ClubMac 270MB 3.5" Removable*	$349
C104 1803	ClubMac 105MB 3.5" Removable*	$149
S198 2001	SyQuest EZ135 135MB 3.5" Removable	$219

*Cartridge not included

SyQuest Media

BEST BUY

Part Number	Media	Qty 1	Qty 10	Qty 20
S198 1010	44MB	$40ea	$39.50ea	$39ea
S198 1011	88MB	$44ea	$43.50ea	$43ea
S198 1012	200MB	$69ea	$68ea	$67ea
S198 1013	105MB	$35ea	$34.50ea	$34ea
S198 1014	270MB	$57ea	$56ea	$55ea
S198 2010	EZ135MB	$23ea	$22.50ea	$22ea

iomega

I044 1010	Zip Drive with One 100MB Cartridge	$199.99
I040 1006	Zip Cartridge (100MB)	$19.99
I040 1011	Zip Cartridge (3 pack)	$49.95
I040 1010	Zip Cartridge (10 pack)	$149.95

TAPE BACKUP

ClubMac

Shipped with Retrospect 3.0

C104 0900	ClubMac 2-4GB SCSI MiniCartridge Drive (Cartridge not included)	$489
C104 1300	ClubMac 2.0GB ThunderDAT Drive	$749
C104 1301	ClubMac 4-8GB DDS-2 DAT Drive	$899
C104 1200	ClubMac 4-8GB DDS-2 SuperDAT Drive	$1059
C104 0200	ClubMac 40GB DLT Subsystem DLT 4000	$4999
S100 1043	Sony QW3080XLF QIC/WIDE 2-4GB Cartridge	$29
V010 1018	Verbatim 90M 4mm DAT Cartridge 2-4GB	$9
V010 1043	Verbatim 120M 4mm DAT Cartridge 4-8GB	$20
Q034 1022	1/2 inch media for DLT 4000	$99

OPTICAL DRIVES

ClubMac

C104 1900	ClubMac 5.25" Olympus 1.3GB Optical w/1.3GB Cartridge	$1359
C104 1902	ClubMac 3.5" Olympus 230MB Optical w/230MB Cartridge	$459
V010 1021	Verbatim 1.3GB Optical Cartridge 1024KB	$59
V010 1013	Verbatim 230MB Formatted Optical Cartridge	$24

TORAY Optical Storage Solutions

T140 1001	TORAY Phasewriter DUAL™ PD 4XCD/650MB Optical	$649
T140 2001	TORAY PDM-650 Media (ZCAV 650MB)	$59

PINNACLE MICRO THE OPTICAL STORAGE COMPANY

P074 1005	Apex 4.6GB Optical w/One Cartridge	$1589
P074 1006	Apex 4.6GB 1024K Media	$189

CD RECORDABLE DRIVES

MICROBOARDS of AMERICA

M274 1002	PlayWrite 2X 2000 CDR w/Gear Multimedia	$1189
M274 1004	PlayWrite 4X 4000 CDR w/Gear Multimedia	$1899

YAMAHA®

Y010 1002	Yamaha 4X CD Recorder w/Toast CD Mastering software	$1829

PINNACLE MICRO THE OPTICAL STORAGE COMPANY

P074 1008	RCD-5040 2X Recordable CD System 2X Write/4X Read	$1249

Verbatim

V010 1022	74 Min Recordable CD Disks 650MB	$8

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- External drives include a Double Shielded, twisted pair 25-50 SCSI cable.
- ClubMac honors all original equipment manufacturers warranties. ClubMac will repair or replace drives at it's discretion. Drives returned within first 30 days of purchase are replaced with a new unit.
- All ClubMac hard drives include a 30 day money back guarantee. Your risk is the cost of shipping.

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R016 1009	Radius Intellicolor Display/20e	$1799
R016 1032	Radius PrecisionView 21Display	$2299
R016 1034	Radius PressView 21•SR Display System	$3199

NEC

N026 1031	NEC 15" MultiSync XV15+	$469
N026 1032	NEC 17" MultiSync XV17+	$799
N026 1009	NEC 17" MultiSync XP17	$1049
N026 1010	NEC 21" MultiSync XE21	$1779
N026 1011	NEC 21" MultiSync XP21	$2159

SONY

S106 1021	Sony Multiscan Trinitron 15SX-1	$445
S106 1017	Sony Multiscan Trinitron 15SF-2	$515
S106 1018	Sony Multiscan Trinitron 17SF-2	$915
S106 1019	Sony Multiscan Trinitron 17SE-2T	$1095
S106 1020	Sony Multiscan Trinitron 20SF-2	$1855

Portrait Display Labs

P026 1003	Portrait/Pivot 1700 .26 Dot Pitch	$1049
P026 1004	Portrait/Pivot 1700 .28 Dot Pitch	$989

MAG INNOVISION

M156 1004	MagInnovision DX15T Technitron w/Trinitron tube	$449
M156 1005	MagInnovision DX17T Technitron w/Trinitron tube	$799

PRINTERS

HEWLETT PACKARD

H047 1030	HP LaserJet 5MP Laser Printer	$1045
H047 1039	HP DeskWriter 600 InkJet Printer	$249
H047 1033	HP DeskWriter 660C Inkjet Printer	$379
H047 1041	HP DeskJet 850C InkJet Printer	$515
H047 1042	HP DeskJet 1600CM/PS PostScript Printer	$1985
H047 1061	HP DeskJet 340CM w/Color kit & Mac adapter	$339

EPSON

E047 1018	Epson Stylus Color II	$449
E047 1019	Epson Stylus Color Pro	$599
E047 1022	Epson Stylus Pro XL	$1799

NEC

N027 1001	NEC SilentWriter Model 640	$399
N027 1006	NEC SuperScript 3000M Color Dye-Sub	$399

SCANNERS

EPSON

E045 1003	Epson ES-1200C Pro-MAC Color Scanner	$1179
E045 1013	Epson ES-1000C MAC Scanner	$735

AGFA

A055 1011	Agfa StudioScan IIsi	$939
A055 1001	Agfa Arcus II	$2195

HEWLETT PACKARD

H045 1013	HP ScanJet 4s Personal Scanner	$299
H045 1009	HP ScanJet 4c Color/GS Scanner	$949

MICROTEK

M150 1006	Microtek Scanmaker III	$1989
M150 1026	Microtek Scanmaker E3	$399

UMAX

U010 1044	Umax PowerLook Pro w/ Transparency Adapter	$1949
U010 1053	Umax Vista-S8 LE w/ Transparency Adapter	$799
U010 1038	Umax Vista-S8 Pro	$769
U010 1010	Umax Vista-S6 LE	$559

GRAPHIC CARDS

radius

R013 1059	Radius Thunder IV GX 1600	$1999
R013 1061	Radius Thunder IV GX 1152	$1599
R013 1069	Radius PrecisionColor 8/1600 PCI Card	$469
R013 1070	Radius Thunder 30/1152 PCI Card	$799
R013 1071	Radius Thunder 30/1600 PCI Card	$1199
R013 1072	Radius ThunderColor 30/1152 PCI Card	$1599
R013 1073	Radius ThunderColor 30/1600 PCI Card	$1999
R013 1018	Radius VideoVision Studio 2.5.1	$2399
R013 1077	Radius Telecast Upgrade	$3459
R013 1026	Radius Spigot Power AV	$599

ATI TECHNOLOGIES INC.

A143 1010	ATI XCLAIMGA 2MB PCI Graphics Card	$369
A143 1009	ATI XCLAIMGA 4MB PCI Graphics Card	$499

TRUEVISION

T043 1001	Targa 2000 (PCI Mac)	$4295

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I143 1001	IMS Twin Turbo 128M 4MB PCI	$579

NUMBER NINE VISUAL TECHNOLOGY

Imagine 128 True 128 Bit PCI

N080 1003	4MB	$729
N080 1002	8MB	$1169

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WACOM

BEST BUY w/Painter 4.0

W010 1026	ArtPad II 4x5 with Erasing Pen	$139	W010 1033	$419
W010 1028	ArtZ II 6x8 with Erasing Pen	$298	W010 1034	$578
W010 1029	ArtZ II 12x12 with Erasing Pen	$425	W010 1035	$705
W010 1030	ArtZ II 12x18 with Erasing Pen	$695	W010 1036	$975

ACCELERATORS

DAYSTAR DIGITAL

D040 1018	DayStar Turbo 040	$599
D040 1057	DayStar 100MHZ PowerCard 601	$969
D040 1043	DayStar 100MHZ PowerPro 601	$1199
D040 1039	DayStar 66MHZ Turbo 601 for IIci	$839
D040 1050	DayStar 100MHZ Turbo 601 for IIsi, IIci, Performa, IIvx, IIvi	$1139

MODEMS

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B030 1007	Fast Mac V.34 28.8 Fax/Data Modem	$139

BEST DATA Merging Multimedia & Communications

B020 1001	Best Data 2834FLXMAC 28.8 V.34 External Mac	$155
B020 1003	Best Data 2834VLXMAC 28.8 V.34 External Mac w/Voice Mail	$188

GLOBAL VILLAGE COMMUNICATION

G050 1006	TelePort Gold II	$109
G050 1016	TelePort Platinum	$199
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PowerMac Memory Selection Guide

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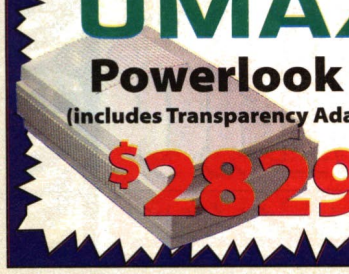

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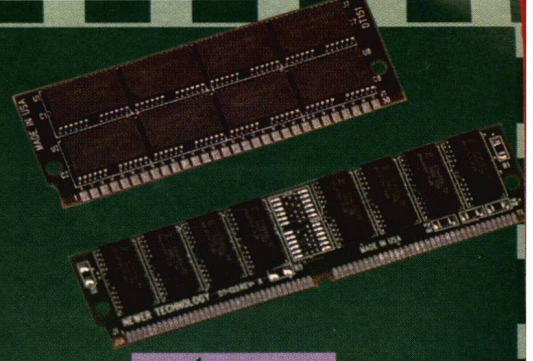

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Radius Pivot Card	SE/30	256	–	–	–
Xceed Color 30hr	SE/30	256	256	256	256
Lapis Color 16	SE/30	Thousands	Thousands	256	256
Lapis Color 24	SE/30	Millions	Millions	256	256
Radius Direct Color/gx	IIsi	Millions	–	–	–
SuperMac Spectrum 8	IIsi	256	256	256	256
SuperMac Spectrum 8.24	IIsi	Millions	256	256	256

Video Card	Platform	Monitor (Colors) 14/15"	16/17"	19/20"	21"
Radius FPD Card	Mac SE	Mono	–	–	–
SuperMac Superview	Mac SE	–	–	Mono	–
Radius TPD Interface	Mac SE	–	–	–	Mono
RasterOps 8/LC	LC/PDS	–	–	256	–
SuperMac Spectrum 8	LC/PDS	256	256	256	256
Lapis Color 16 for LC	LC/PDS	Thousands	Thousands	256	256
Micro Conversions 1724	LC/PDS	Millions	Millions	256	256
Lapis Color 24 for LC	LC/PDS	Millions	Millions	256	256

Video Card	Platform	Monitor (Colors) 14/15"	16/17"	19/20"	21"
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RasterOps 708+	Nubus	256	–	256	–
RasterOps 24L	Nubus	Millions	–	–	–
RasterOps 8/LC	Nubus	–	–	256	–
SuperMac Spectrum 8	Nubus	256	256	256	–
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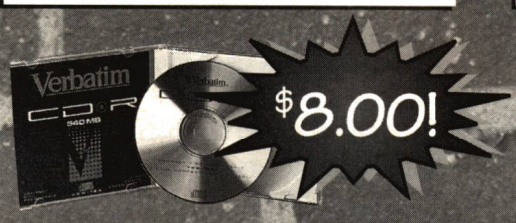

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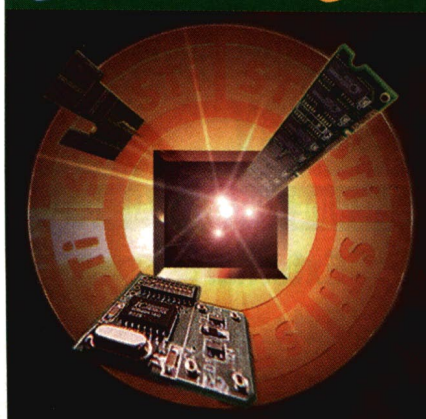

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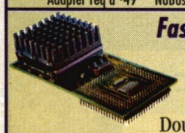

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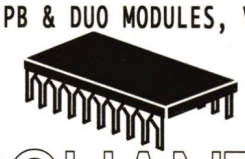

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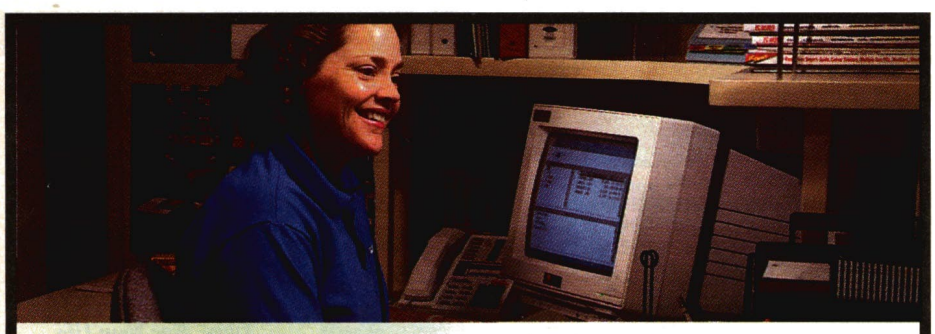

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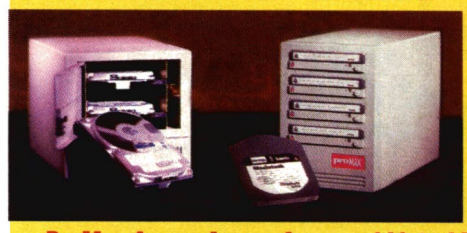

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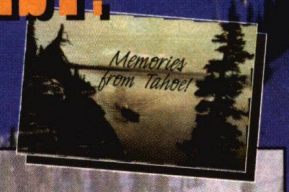

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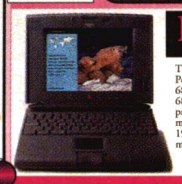

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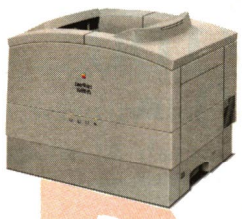

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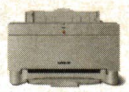

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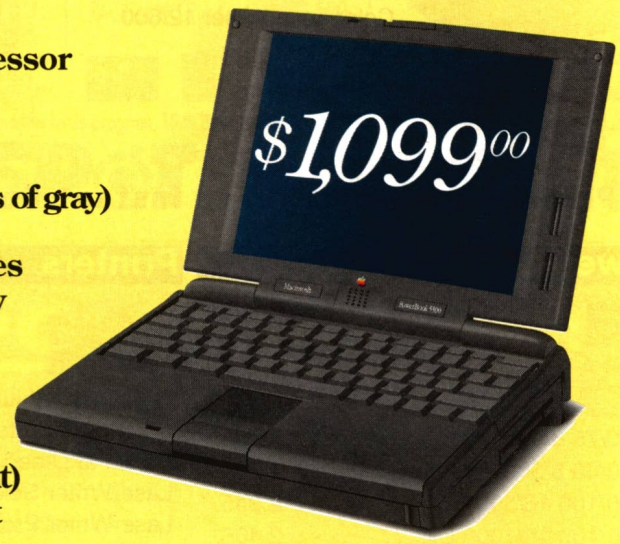

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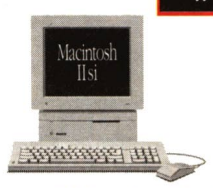

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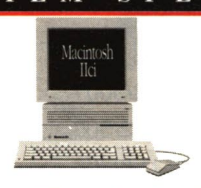

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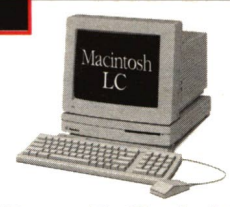

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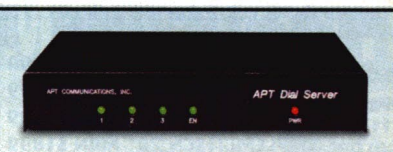

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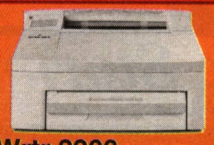

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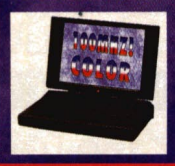

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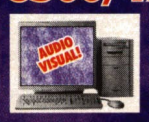

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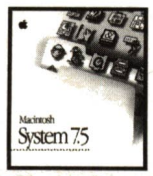

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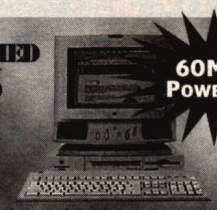

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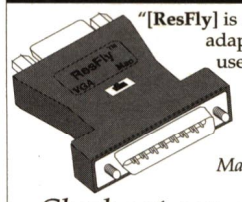

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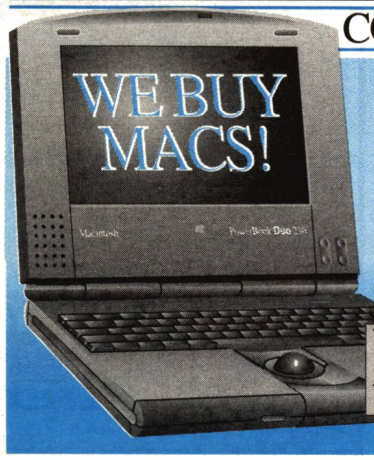

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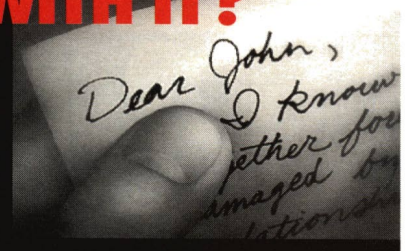

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Classified

Roizen

From Page 1

to do more with companies like Microsoft [Corp.] and Adobe [Systems Inc.]," she said.

New Apple CEO Gilbert Amelio should be an asset to her in this endeavor. He has already begun meeting with developers to assure them that their issues have his full attention, and Roizen said she intends to keep his mind riveted on their problems. "Dealing with developers should be an integral part of what everyone at Apple does," she said.

Her second task is to build an account-management team to serve as the primary contact between Apple and developers. The group would both help vendors with technical and business issues as well as scout for applications in the Windows market that would be well-suited for the Macintosh.

Third in Roizen's five-point plan is a personal task. She wants to help top executives develop and drive Apple's product strategy from a developer perspective. She disagrees with those who claim Apple suffers from not-invented-here syndrome. But, she said, "Most leads for cool third-party products come from engineers." She wants that kind of thinking to prevail at Apple from the top down.

Perhaps her most difficult chore will be to "fix the perception that there's no Mac software in the retail channel." And just temporarily buying shelf space will not solve the problem, she said.

"There's calcification in the channel," Roizen said. Because most developers build "hybrid products," that is, versions for both Mac and Windows, "perhaps we need to embrace and extend the hybrid concept." That could mean that developers would sell a single box with both Mac and Windows versions and logos, while retailers would stock and promote hybrids in a separate area. That would go a long way toward proving how much Mac software is available.

Last on her hot list is improving Apple's relationship with the press and industry analysts. "We need to learn to speak to customers and developers through them," Roizen said.

"I'm very encouraged," she said of her new job. "It isn't going to be as hard to fix as people think. Vendors predicate so many of their decisions based on volume. And Apple is shipping record numbers. That's a big help." □

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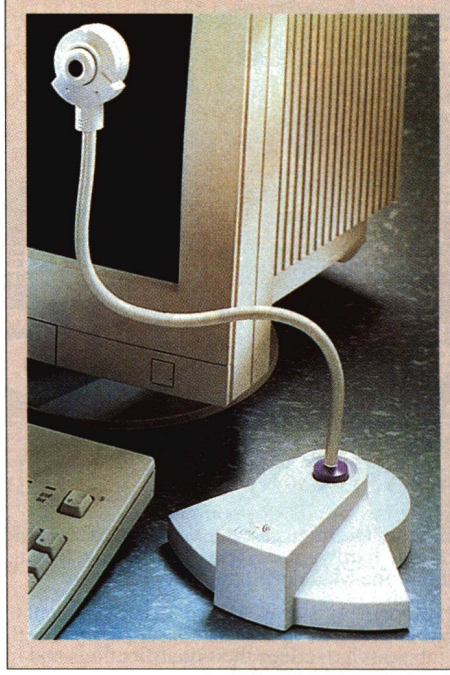

VideoLabs Inc., maker of FlexCam, recently stuck its neck out by simultaneously lowering the price and redesigning the hardware on its desktop digital video camera.

The company said the new design is less expensive to manufacture, enabling it to reduce the FlexCam's price from $595 to $395.

Designed mainly for videoconferencing, the camera now supports S-video, which VideoLabs said provides a sharper image and more vivid colors. Its CCD (charge-coupled device) captures video at 492 by 510 pixels in 24-bit color.

VideoLabs Inc. of Minneapolis can be reached at (612) 988-0055 or (800) 467-7157; fax (612) 988-0066. — By Kelly Ryer

CPUs

From Page 1

with a 256-Kbyte Level 2 cache. Currently, only the 8500 and 9500 come standard with a Level 2 cache. Another adjustment will be a larger hard drive in the Power Mac 7200, bumping it from 500 Mbytes to 1.2 Gbytes.

Pricing for most new models will remain in line with their slower predecessors. A 120-MHz 7600 with 16 Mbytes of RAM, a 1.2-Gbyte hard drive, a quadruple-speed CD-ROM drive and a Level 2 cache will cost $3,000; a similarly equipped 150-MHz 9500 with a larger hard drive and a graphics card will cost about $4,800, sources said.

In addition, Apple is expected to cut prices on current models to move them out of inventory. The Apple Power Payback program, which offers rebates for Power Mac 7200 buyers, ends March 17.

"I think it's excellent," one dealer said of the faster systems. "Consumers tend to look at the megahertz as a decisive factor in a purchasing decision. Hopefully this will give Apple an edge."

Apple declined to comment. □

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Now

From Page 1

contacts to the Web. Users will then be able to drag listings from Web-based calendars and databases directly into Now personal information managers on their desktops.

Each item will become a new event or contact; no reformatting will be necessary. A hyperlink to the site that originated the contact or event will be pasted automatically into the item's Notes field.

The new Web pages will include buttons that let clients view calendars by day, week or month, although they will not be able to edit them.

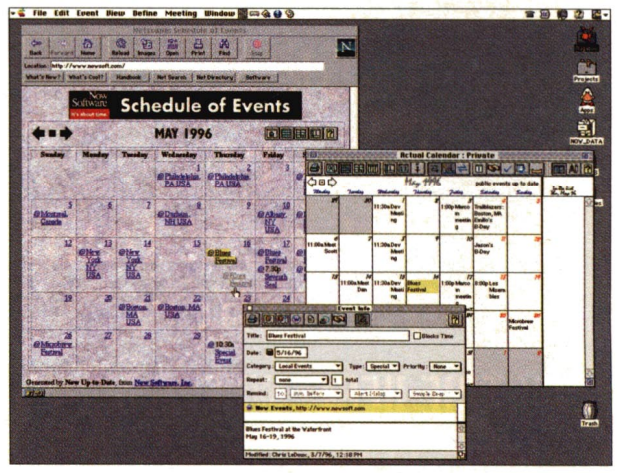
Portland, Ore.-based Now will make all of this possible by embedding a Web server into its products and supporting the Versit vCard file format. Versit is a coalition formed in December 1994 by Apple, AT&T Corp., Siemens Rolm Communications Inc. and IBM Corp. to promote interoperability between computer and telecommunications products (see 12.05.94, Page 1). vCard, or virtual business card, is an open specification based on Bento, Apple's compound-document architecture, which is incorporated into OpenDoc.

In addition to disseminating information through their built-in servers, the programs will export calendars and contacts in the vCard format for posting through a separate Web server, Now said.

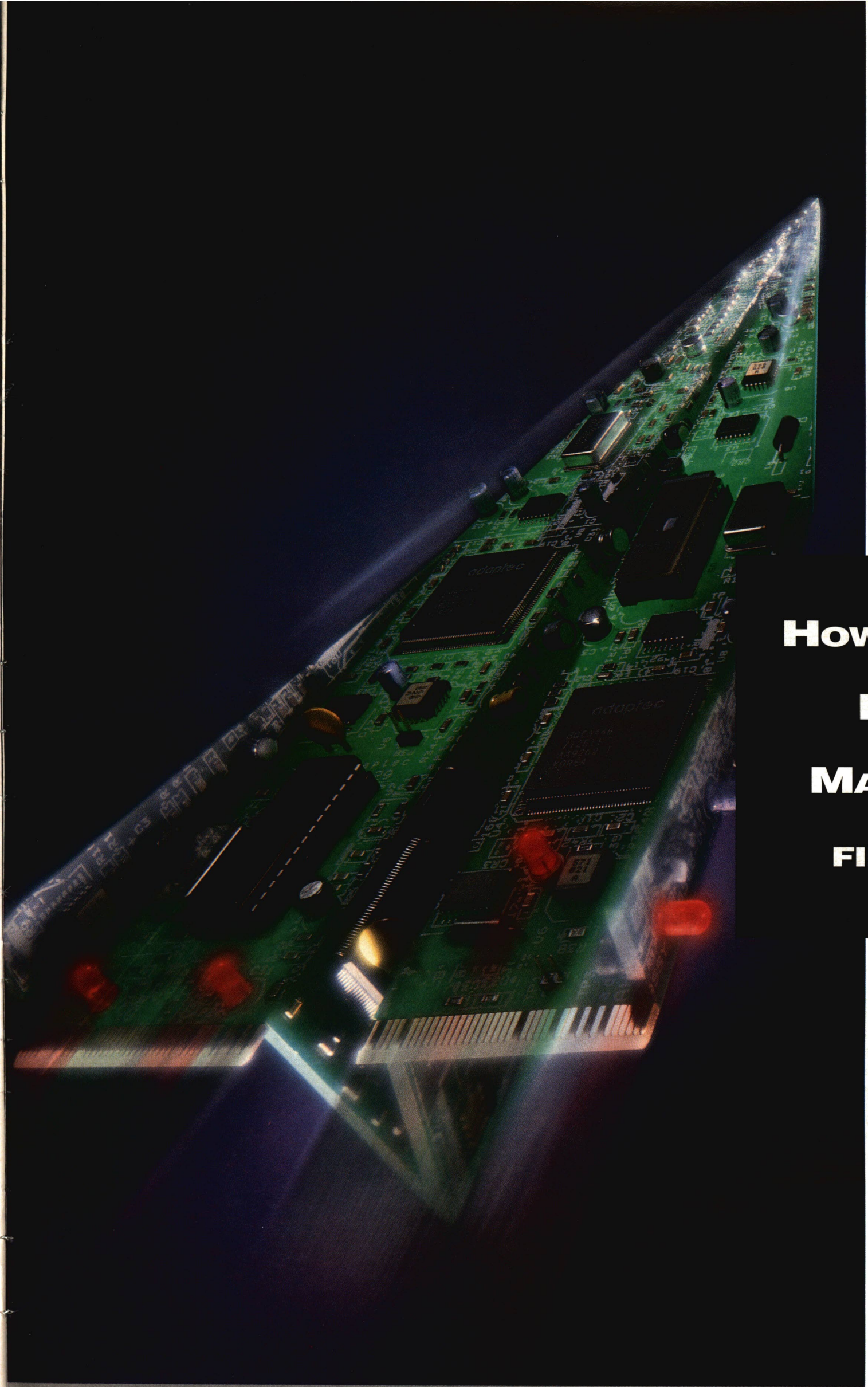
In a move that may bolster the company's Internet strategy, Now last week announced an alliance with Four11 Corp. of Menlo Park, Calif. Four11 said users will be able to drag any of its more than 10 million user listings from its Internet white pages Web site directly into Now Contact databases.

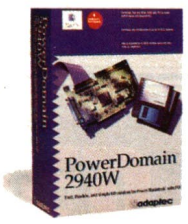
Agreements to deliver calendars of class schedules, employee directories, sporting events and television listings across the Web are reportedly in the works. Atlantic Recording Corp. could sign on as early as next week to make tour schedules for its artists available in vCard format, sources said.

Now declined to comment on whether its technology demonstration will become a real product or on any further alliances. □



Forthcoming versions of Now Up-to-Date and Contact will serve data through the Web and let clients drag listings to their PIMs.





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QuickTime

From Page 1

tion, Version 2.2 will support Macs with multiprocessors and include a new sequence grabber for capturing closed-caption text.

Later this spring, Apple will add several key technologies to QuickTime. Foremost is a software MPEG extension, which will allow users to select, copy and paste portions of MPEG files; move frame by frame through a movie; and link other QuickTime objects to selected moments in a scene.

"In MPEG, the frames users see are derived from a combination of data chunks that are distributed across a range of nearby frames," said Tim Schaaff, engineering manager for QuickTime at Apple. "The MPEG format doesn't provide any direct editing support or any means of providing a specific frame — that frame must be synthesized by QuickTime. Now [MPEG] behaves just like every other QuickTime media type."

Also expected this spring is a QuickTime plug-in for Navigator, which will optimize streaming QuickTime playback over the Internet.

Analysts said the Web and MPEG additions are steps in the right direction. "This shows that Apple finally gets it with digital video," said Neil McManus, executive editor of Digital Media, a Seybold publication in San Francisco. "You'll be able to do real production of video on the Internet without having to buy add-on boards."

In the summer, Apple plans to release multiplatform versions of QuickTime with a common code base for both playback and authoring; the current Windows version supports playback only. The initial release will be for the Mac, Windows 95 and Windows NT platforms; versions for Silicon Graphics Inc.'s Irix, other flavors of Unix and OS/2 will follow later this year.

"We want it to be truly multiplatform, not just cross-platform," said Carlos Montalvo, Apple director of new media products. "We want to become the universal container for digital video."

The QuickTime team's second phase looks farther into the future. The company plans to complete Interactive QuickTime, which has reportedly been in development for several years, by the first quarter of 1997.

Apple's Schaaff said that while development is just beginning, the multiplatform IQT will be a "standardized open container for interactive media objects, and the framework will support behaviors and messaging between objects."

According to Schaaff, IQT will be an open system with published file formats for third-party developers. It will build on QuickTime's current architecture, so developers need not overhaul current applications to support it. IQT is expected to support current multimedia scripting languages, such as Macromedia Inc.'s Lingo.

Apple's new QuickTime strategy will focus on speedy development cycles and increased developer input.

Montalvo said developer feedback will be invited in open forums during trade shows. The next technical forum will be in April at the National Association of Broadcasters conference in Las Vegas.

"With our recent reorganization, we see for the first time a continuous alignment, from R&D right through to the customer," Montalvo said. Industry insiders said this type of openness is a departure for Apple, which only recently made this move to include developers in its planning.

In response to recent announcements of Microsoft's Active Movie, Montalvo said, "QuickTime is a de facto standard used [currently] in products by tens of millions of users, as opposed to a proprietary standard based on a press release." □

Microsoft takes on QuickTime

Active Movie to span platforms

By James Staten

Instead of waiting for Apple to beef up QuickTime for Windows, Microsoft Corp. has created a competing standard that could challenge the Macintosh maker's multimedia architecture on its own turf.

Active Movie is a cross-platform digital video technology for the desktop and the Internet. On Windows 95 and NT, it will be an API that hooks directly into Windows' lower-level drivers. On the Macintosh, it will compete directly with QuickTime as a system extension (see story, Page 1).

The technology has the backing of more than 20 multimedia developers, including Adobe Systems Inc. of Mountain View, Calif., and Macromedia Inc. of San Francisco, as well as two MPEG consortiums.

Redmond, Wash.-based Microsoft said the architecture will decode MPEG files in software, providing full-screen playback at 12 to 24 frames per second on Pentium-based machines with 11-kHz sound.

Both desktop and Internet applications will be able to play back MPEG, .AVI , QuickTime, .AU (Unix sound), .WAV (Windows sound), MIDI and AIFF (Audio Interchange File Format) files while they are being downloaded from a server.

"It plays QuickTime movies better on Windows than QuickTime does," said H. Steven Banfield, Microsoft Internet and multimedia evangelist.

Active Movie's plug-in architecture will let hardware and software developers add support for their own drivers, compressor-decompressors and file formats, or modify the set of filters provided by Microsoft.

Banfield said the architecture will let filters communicate with each other; for instance, one filter could retrieve data from a CD-ROM while the next handles decompression and playback.

A beta of the Windows API will be released this week, and a final version is due in June. The Mac extension is scheduled for release later this year.

To entice developers further, Microsoft said it will charge no licensing fees for redistribution of the architecture.

Joyce Chung, Premiere senior product marketing manager with Adobe, said that Active Movie offers high data rate playback of movies. "If [Microsoft] can offer that same performance on the Mac, we'll support it," Chung said.

"It's a little premature [to talk about Active Movie on the Mac]," said Steve Raney, business manager at Pinnacle Micro Inc. of Irvine, Calif. "Not even a beta has been released for the Mac." □

SGI

From Page 1

servers to low-cost Mac client machines, such as the Power Mac 7500, Apple said.

"They have to get past the island approach," said John Rossi, managing director with Robertson Stephens and Co. in San Francisco. Rossi said while the Mac is the primary platform for preproduction tasks and SGI workstations are No. 1 in special effects, users have not been able to easily move content from one to another. "This cooperation will let them grow the market."

Mountain View, Calif.-based SGI also unveiled its SiliconCentral system, which will offer real-time browsing, version control and data archiving by the end of the summer.

"The public has high expectations for production values, but [the production companies] can't go on with the current high costs, said Elizabeth Daley, dean of the University of Southern California's School of Cinema/Television in Los Angeles. "[The architecture] offers the appropriate technology for each level of production," she said.

Analysts said that in addition to giving workers involved in various production jobs easy access to digital media, the new cooperation will also streamline the reuse of content for other purposes such as games.

"Today you can't see an asset throughout the entire process; it's a bottleneck for production and productivity," said Carlos Montalvo, Apple director of new media products. He said the demand for new content as well as the repurposing of digital assets will push the market for integrated products. "The only way studios can fill demand from cable [companies] and the Internet will be reducing the cost of production with integration. We're going to open up digital assets that are now stored locally."

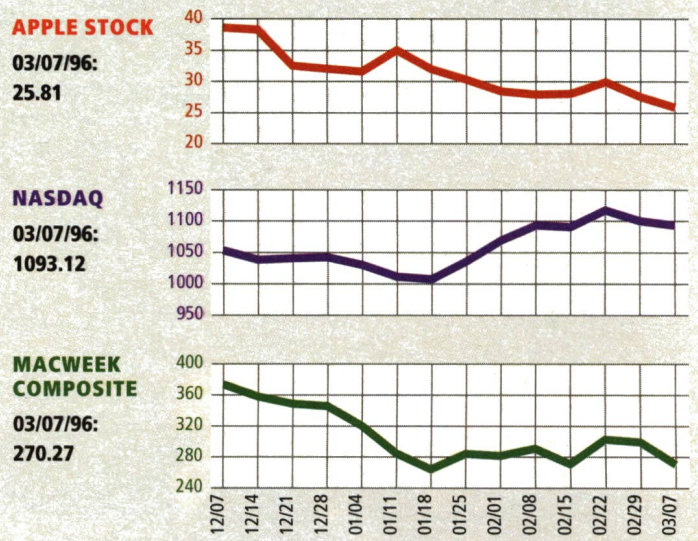
The QuickTime deal is not the only technology cooperation between the two companies.

Apple last week joined SGI and Netscape Communications Corp., also of Mountain View, in supporting the Moving Worlds specification for Virtual Reality Modeling Language 2.0.

Apple said the specification will now include a new file format based on Apple's 3DMF (3-D metafile format), which will boost file streaming and data parsing performance as well as enable better compression.

In addition, SGI this month said it will add system-level support for ColorSync 2.0 to its Cosmo Color Web-based color-correction technology. □

StockWatch



	03.07.96 CLOSE	WEEKLY CHANGE
Apple	25.81	-1.69
MacWEEK Composite*	270.27	-28.86
SOFTWARE DEVELOPERS		
Adobe	32.50	-1.00
Caere	7.75	0.50
CE Software	3.13	0.38
Fractal	5.13	0.00
Graphsoft	13.25	-2.13
Insignia	7.38	1.63
Intuit	43.75	-23.00
Macromedia	36.63	-3.44
Microsoft	97.31	-1.38
Novell	12.50	0.31
Oracle	49.75	-2.25
Symantec	12.56	-0.19
STORAGE		
Conner	25.75	0.00
Iomega	17.06	-1.56
Pinnacle	8.63	-1.13
Quantum	17.25	0.13
Seagate	56.63	-8.63
SyQuest	5.94	-0.19

	03.07.96 CLOSE	WEEKLY CHANGE
PERIPHERALS VENDORS		
AmeriQuest	0.81	0.06
Asanté	6.50	-0.25
Focus	3.88	-0.25
Global Village	13.63	-2.76
HP	93.38	-7.38
QMS	5.00	-0.13
Radius	0.94	-0.38
Shiva	87.00	3.25
Tektronix	43.75	-1.63
Truevision	6.69	0.69
DISTRIBUTORS		
CompUSA	41.75	1.75
IE	6.75	-0.13
Merisel	2.63	-0.06
Tech Data	15.00	-0.13
INDUSTRY INDICATORS		
Compaq	39.25	-11.38
IBM	117.13	-5.00
Intel	53.13	-5.69
Motorola	52.38	-2.13
SGI	24.88	-0.13
NASDAQ	1093.12	-6.93

**The MacWEEK Composite is calculated by adding the stock prices of the following companies: Apple, Adobe, Asanté, Caere, CE Software, Global Village, Intuit, Macromedia, Radius, Shiva, SyQuest and Truevision. Source: Nordby International Inc.*

TECHNICAL HELP WANTED

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On-line this week

ZDNet MacWEEK reviews on-line

This week MacWEEK Online includes three extra reviews. Pitch Software has rescued Full Contact from oblivion. We found the PIM's 3.0 upgrade rough-edged and poorly supported. We also took a look at Extensis Corp.'s Intellihance 2.0 and Microspot USA Inc.'s new, lower-priced PhotoFix 3.1.1. All these, plus the full lineup of reviews from the printed edition of MacWEEK, can be found at http://www.zdnet.com/macweek/reviews.html.

WebEdge III

Those unable to attend WebEdge III, last week's Mac Web Developers' Conference, can read our extended report on-line.

Where to find us on-line

On CompuServe, the MacWEEK Forum is at go zmc:macweek and the free MacWEEK News menu is at go zmc:mwnews. On the Web, our home page is at http://www.zdnet.com/macweek/.

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Looking ahead

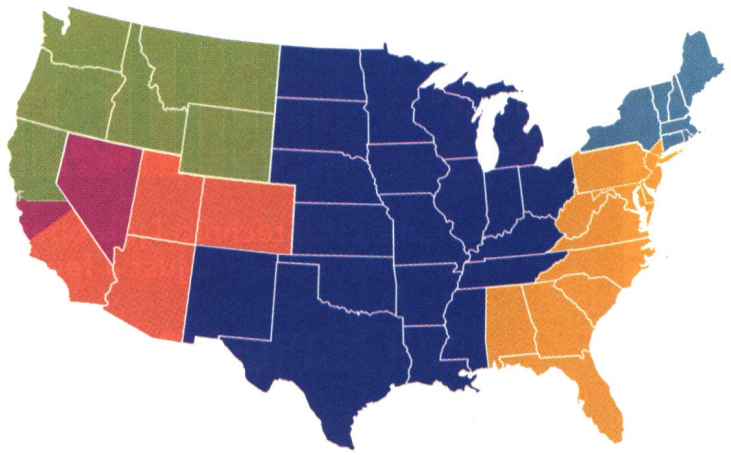
SOLUTIONS IN THE WORKS

We want to know the difficulties, successes and failures you've experienced in the areas defined below. Send your comments to solutions@macweek.com. Please include information on how to contact you.

- Photoshop users: Relate your experiences regarding what techniques you have used for Photoshop acceleration.
- If you have used entry-level CD-Recordable drives, we would like to hear about your experiences and your reasons for purchasing them.

REVIEWS IN THE WORKS

- Apple PowerBook Duo 2300
- Storage options for the PowerBook 5300 and 190
- Macromedia's Extreme 3D
- Intuit's QuickBooks Pro 4.0



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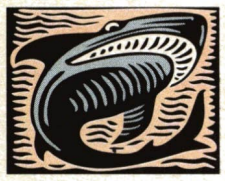

Birds, bees and applications

Spring is in the air, and hints of the coming thaw are everywhere. The glaciers seem to be receding from upper Manhattan; flocks of migratory Republicans have descended like locusts on America's heartland; and, like most Type A industry dweebs, the Knife's fancy is turning to thoughts of new software.

There are plenty of exciting developments to fuel the Knife's already fecund imagination. Take expansionist graphics archduchy Fractal, which is joining the vernal rites with a brand-spanking-new 3-D painting program. The Knife's midwives say the baby is a logical result of Fractal's marriage to Ray Dream. Even before pledging their troth, the companies discussed just such a blessed event.

Claris' little dividend

Meanwhile, Apple's better half has its own precious bundle slated for delivery this summer: a major rewrite of Claris Organizer. Version 2.0 of the plucky little PIM features a streamlined contact view, file synchronization so mobile users can keep all copies of their data consistent, and a menu-bar button that will provide instant access to Organizer data whether or not the application is running. Schwing!

Light up our lives

Speaking of delightful little additions to the family: Apple next week will take the wraps off a whole new Newton MessagePad at CeBIT '96 in Hanover, Germany. Besides on-demand backlighting, the Indiglo PDA doubles the size of the system heap with an extra 512 Kbytes of RAM.

Yo, ho, ho, ho

Even lantern-jawed lawmen start feeling a little frisky when spring is in the air. Case in point: Sassafras Software and McAfee, the Friday and Gannon of security software, are gestating new versions of their anti-piracy packages. Version 4.0 of McAfee's SPAudit server, due in April, will run on Windows NT machines as well as NetWare boxes and add a Mac client. Meanwhile, Sassafras Software is revamping KeyAudit to sniff out hardware across platforms.

Object of our affections

And while we're on the subject of cross-pollination: The standard bearers of component software are letting their hair down and joining the Bacchanalian atmosphere surrounding OpenDoc. The Knife's parts worshippers report that the Object Management Group, which defined the Common Object Request Broker Architecture specification, is on the verge of giving its influential blessing to OpenDoc as the user-interface portion of CORBA. The Knife hopes that OpenDoc will be named the official component architecture of the 1996 Summer Olympics.

Fickle, fickle, fickle

Alas, spring fever may precipitate the end of beautiful relationships even as it inspires new flirtations. An employee for a major telecommunications company recently placed a teary phone call to the Knife, complaining that his company is in the process of phasing out its 30,000 Macs in favor of Wintel models. The jilted Macolyte asserts that the executive who decided to dump the platform may have been moved more by avarice than lust, however: After putting the kibosh on the Mac, the ax man took a job with IBM.

Crow: The other white meat

In the spirit that moved Pat Buchanan to reclaim his parochial-school roots, the Knife must offer up a hearty *mea culpa* for confusing the founder of scanner manufacturer Leaf with the bass player of rock dinosaur Hot Tuna in last week's column. The digital imaging guru's name is Bob *Caspe*; moreover, the Knife has no reason to believe that Mr. Caspe is planning to record with Jorma Kaukonen in the foreseeable future. □

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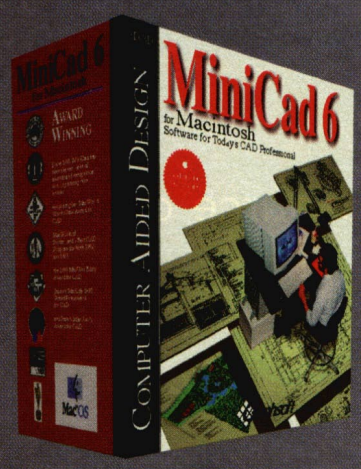

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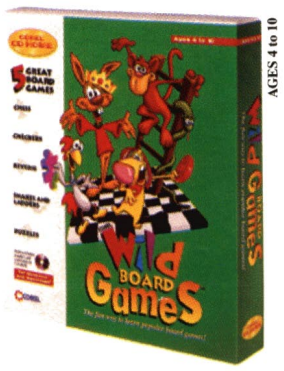

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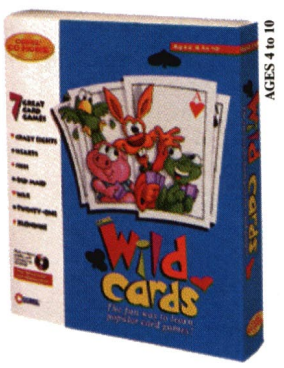

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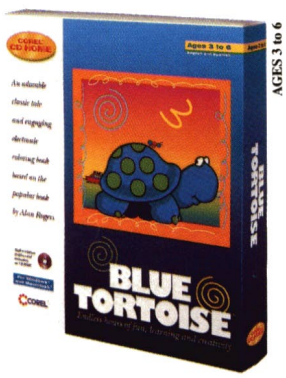

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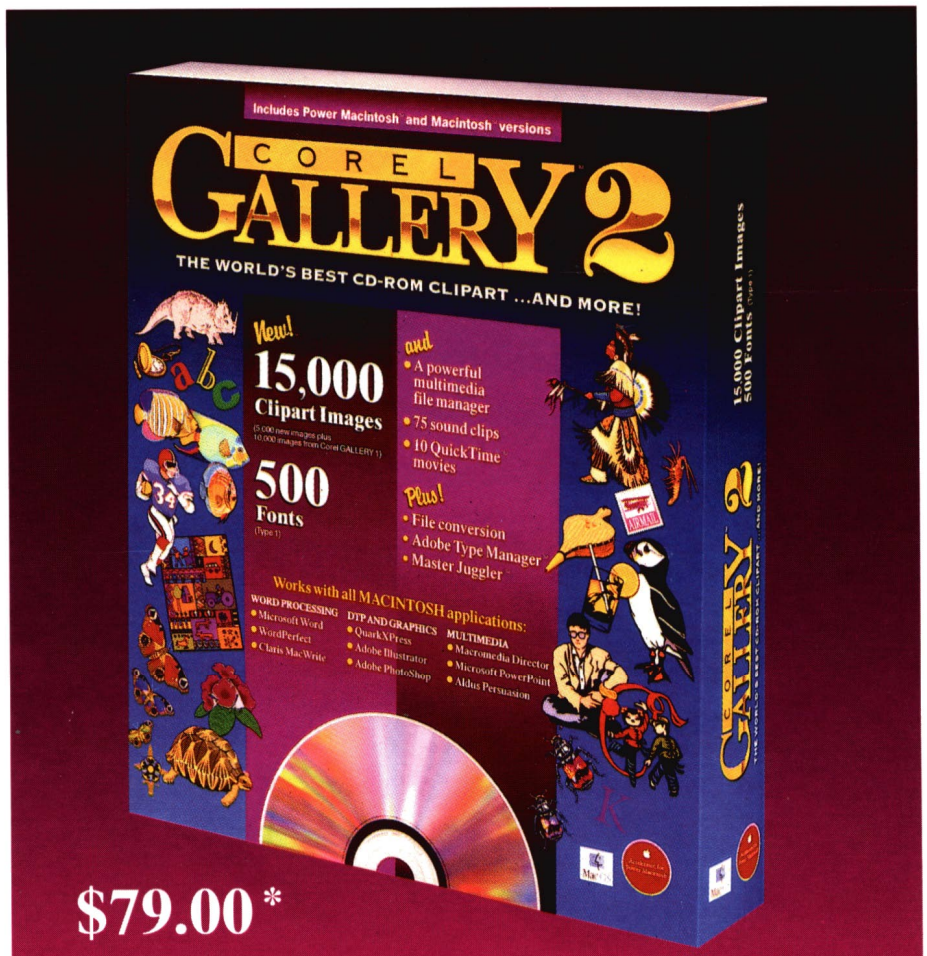

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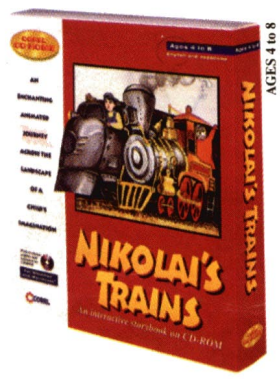

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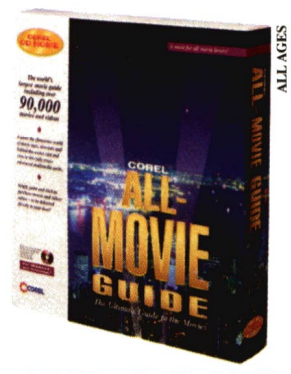

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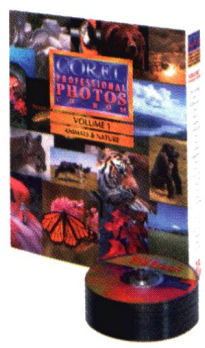

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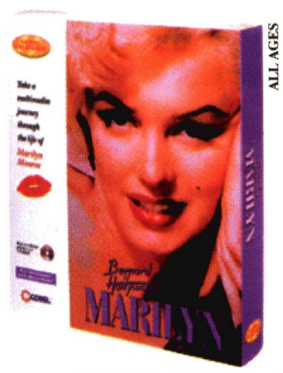

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